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The effects of in-service training on principals' attitudes towards the mainstreaming of handicapped students.

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THE EFFECTS OF IN-SERVICE TRAINING ON PRINCIPALS' ATTITUDES TOWARDS THE MAINSTREAMING OF HANDICAPPED STUDENTS

A Dissertation Presented

By

LINCOLN ANTHONY DEMOURA

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Dedication

To my wife Judith, without her love, patience and understanding, this endeavor would have been impossible.

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I would like to extend my thanks to Dr. Kenneth A. Parker, my Doctoral Committee Chairperson. Without his continued encouragement, guidance, his friendly smile of understanding and helpful critiques, the completion of this requirement would have been extremely difficult. I would also like to express my gratitude to my remaining Doctoral Committee Members; Dr. Frank P. Lattuca, Dr. Robert S. Peterkin and Dr. Myron R. Segelman, for their advice, cooperation and support.

To all Doctoral Committee Members "thank you". Thank you for sharing your time and efforts. It's heartening to know that throughout the doctoral process individuals like yourselves do care and willingly provide assistance to students in search of their terminal degree.

ABSTRACT

THE EFFECTS OF INSERVICE TRAINING
ON PRINCIPALS' ATTITUDES TOWARDS
THE MAINSTREAMING OF HANDICAPPED
STUDENTS
(February, 1987)

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This study investigates whether or not it is possible through in-service education, prescribed by the researcher, to improve principals' attitudes towards the mainstreaming of handicapped students. Variables to be investigated are the influence of age, years of teaching experience, years as a principal and the number of special education courses taken. In addition, as a result of in-service training, will principals' knowledge of special education placement improve?

Twelve principals (8 elementary, 3 middle and 1 high school), in the Taunton Public School System, participated in a ten week (20 hours) in-service training

program. Much of the workshop format centered upon the work of Peters and Austin as described in their book "A Passion for Excellence: The Leadership Difference", particularly, what are the basics of managerial success in business and can these principles be transferred to the field of education successfully.

Using the null hypothesis, this researcher hypothesized that participation in the workshop would positively affect principals' attitudes. To analyze the effects of the workshop the Rucker Gable Educational Programming Scale was given as a pre and post test. Also, the Pearson Product-Moment Correlation was used to analyze the influence of the variables.

Pre-to posttest data indicate that an attitude loss occurred in five out of seven score areas, with a significant loss at the .05 level occurring in the Severe, Mental Retardation score areas. In the area of Severe, while not statistically significant, the data strongly suggests a knowledge gain in the Severe score area. Also the variables of age, years of teaching experience, years of a principal and the number of special education courses did not have a significant influence on attitude or knowledge.

While the workshop did not produce significant statistical outcomes, there were several positive

educational outcomes that resulted. First, A Teacher Assistance/Child Study Team and secondly, a Model Class Program. Both outcomes, in the opinion of the researcher, are a result of the Leadership Difference as defined by Peters and Austin.

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INTRODUCTION

Effective programming for handicapped children has concerned educators for some time. In Massachusetts, Chapter 766, a special education law, has been implemented in school systems since 1972. Yet, for some unexplainable reason the number of children receiving special education services continues to grow while the total number of all students is declining. Early after the passage of Chapter 766, the lack of teachers trained to identifying students with special needs was used to explain the few students receiving special education services. Over the last decade, however, the number of children receiving special education services has continued to grow at an unusually fast pace.

An additional concern is the number of substantially separate classrooms used for students with special needs which continue to grow at a rate that will, in the next few years, become the largest educational program in the Taunton Public School System (See Table 1). This researcher does not propose to impede the referral process, but instead, to impress upon our educational leaders, specifically building principals, the importance of providing necessary services as close to the regular

education used for non-special needs students as possible. Building principals in the Taunton Public School System are chairman of the TEAM evaluation process used to identify students with special needs. As chairman, they are in the position to influence the Individual Educational Plan, or I.E.P., of the children in that school.

Like most school systems, the number of handicapped children in the Taunton Public School System has been increasing every year since Chapter 766 has become law, especially at the elementary level. In 1985-86, 2671 students in grades K-12 are receiving special services from either Special Education Specialists, Chapter I Learning Counselors, or Remedial Reading Teachers. Of this 2671, 40.6% or 1085 students are presently identified as handicapped. This amount represents 17% of Taunton's total school population. When one looks at the federal average for special education at 12% and the state average being at 14%, one can only wonder why Taunton has such a high percentage of special needs students. If the current trend continues, by 1990 one out of every four students in the Taunton Public School System will be identified as handicapped (See Appendix A and Tables 1-3, p.3-5).

Table 1

TAUNTON PUBLIC SCHOOLS

Growth of Special Education

Program	Date Tea/Enrl	Date Tea/Enrl	Date Tea/Enrl	Date Tea/Enrl
	4/27/84	4/29/85	3/27/86	Project. 86/87
Developmental Disabilities	15/233	17/226	16/212	18/234
Behavioral Disorders	6/62	7/79	7/86	8/90
Learning Disabilities	11/148	11/153	15/202	16/235
Total	32/443	35/458	38/500	44/559

The above figures only identify the 502.4 substantially separate classrooms.

Table 2

TAUNTON PUBLIC SCHOOLS

Growth of Special Education

Total Special Education Enrollment

Prototype	4/27/84	4/29/85	3/27/86	86/87
502.1	1	14	24	38
502.2	523	492	467	460
502.3	135	119	166	206
502.4	261	328	376	559
502.4 (1)	46	37	34	10
502.5	26	35	29	33
502.6	11	17	12	10
502.7 (b)	18	59	29	38
502.8	67	4	71	81
502.9	___	___	1	1
Total	1088	1129	1180	1436

Table 3

TAUNTON PUBLIC SCHOOLS

Historical Public Enrollments

Year	Births	School Year	Enrollments
1974	658	1979-1980	7072
1975	607	1980-1981	6858
1976	602	1981-1982	6672
1977	646	1982-1983	6742
1978	628	1983-1984	6548
1979	693	1984-1985	6330
1980	669	1985-1986	6270
1981	674	1986-1987	6190
1982	699	1987-1988	6133
1983	678	1988-1989	6098
1984	720	1989-1990	6071
1985	700	1990-1991	6093

The above data was obtained from the New England School Development Council - Framingham, MA

Much worse, very few children ever remove the handicap label. In reality once a student begins to receive special services, that student continues receiving them until s/he drops out of high school at sixteen, graduates, or reaches age twenty-two. In addition, the greatest increase in special education students in Taunton, is in the area of substantially separate classrooms. There appears to be a tendency on the part of teachers and administrators to move children with problems farther and farther from the regular classroom. This trend runs contrary to Chapter 766 and P.L. 94-142. P.L. 94-142 took effect in October of 1977 and was fashioned after Massachusetts Chapter 766. P.L. 94-142 offers states basic grants and mandates procedures for providing all handicapped children a free appropriate education in the least restrictive environment.

Purpose of Study

Since behavior is controlled by an individuals attitude [1], and since attitudes can be changed through the acquisition of knowledge [2], then how can the researcher through in-service education positively change Principals'attitudes towards the mainstreaming of handicapped students, thus, increasing the educational opportunities for these students. Specifically stated,

"What will be the effects of in-service training on principals' attitudes towards the mainstreaming of handicapped students".

Other questions to be considered in this study are:

1. How can building administrators provide effective programming for handicapped children?

2. How will in-service enable the building principals to become more effective educational leaders?

3. Do the backround variables of the participants; such as age, years in education, years as a principal, and the number of special education courses taken influence the participants' attitudes?

4. Do in-service programs really work?

Significance of Study

The outcome of this study will provide meaningful information to all administrators who, in their positions of responsibility, must supervise mandated programs and keep those programs in compliance with Massachusetts State Department of Education regulations.

The researcher will demonstrate that the in-service program for principals set forth in this study was successful and can serve as a model for other administrators who are looking for ways to change attitudes through staff development programs. The changing of principals' attitudes and subsequently their behavior, will provide additional information for improving educational programs for handicapped children.

Limitation of the Study

The number of participants in this study were twelve principals, thus the resulting data is applicable only to principals in the Taunton Public School System.

Operational Definitions

1. Least Restrictive Environment - is that environment which best meets the educational, psychological, and physical needs of a handicapped student and which is as close to that of his or her non-handicapped peers, as determined to be appropriate by parents, educators, and where feasible, the student.[3]

2. Mainstreaming - the process of meeting the needs of exceptional children in regular classrooms on a full or part-time basis, as appropriate to the specific child and class. [4]

3. Attitude - a mental of neutral state of readiness; organized through experience exerting a directive or dynamic influence on the individual.[5]

4. Handicap - a disability; a disadvantage that makes progress or success more difficult.[6]

5. Disabled - synonymous with handicap

6. In-service Education - Training provided by the employer for the employee. The purpose of in-service is to provide knowledge and assistance which will enable the employee to either improve job performance or update existing skills.[7]

Endnotes

1. Webster's New Twentieth Century Dictionary, 2nd ed. (New York: Simon & Schuster, 1979), p. 122.

2. Ibid., 9. 1007.

3. Massachusetts General Laws, Chapter 766 of the Acts of 1972, p. 6.

4. M. Naor and R.M. Melgram, Two Preservice Strategies for Preparing Regular Class Teachers for Mainstreaming, (Chicago: Exceptional Children, 1983, 47), p. 127.

5. the same results (See footnote 1)

6. Massachusetts General Laws, Chapter 766 of the Acts of 1972, p. 1.

7. Rethinking In-service Education, (Washington: N.E.A., 1975), p. 5.

C H A P T E R I I

REVIEW OF LITERATURE

Introduction

The following research literature is presented in an effort to provide a conceptual base in two areas. One, attitudes and how they affect the mainstreaming of handicapped students and what strategies can be employed to positively change those attitudes and to improve education for all students? Secondly, what are the characteristics of effective schools? This writer is hopeful he can blend both types of data and provide the reader with a background of literature that demonstrates the importance of the building principal as a facilitator for change.

Historical Overview

The Massachusetts Special Education Law Chapter 766 and Public Law 94-142 specify that all children regardless of handicapping conditions, have the right to an appropriate public supported education in the least restrictive environment possible.

Least Restrictive Environment

The concept of least restrictive environment is that environment which best meets the educational, psychological, and physical needs of the handicapped student and which is as close to that of his or her peers, as determined to be appropriate by parents, educators, and where feasible, the student. The least restrictive environment is more than a physical arrangement. It is an attitude, a policy, and a process, which includes staff expectations and competencies that are least restraining of student performance, availability and frequency of contact with normal peers, and equal educational opportunity in a physical setting that ensures maximum freedom of movement. (Pasanella and Volkmor, 1976, Hewitt and Watson, 1976, Reynolds and Rosen, 1976, and Reynolds and Birch, 1977) [8].

Public Law 94-142 (section 121 a. 550), passed by the U.S. Congress in 1975, states that "Each agency shall ensure that to the maximum extent appropriate, handicapped children are educated with children who are not handicapped. That special classes, separate schooling, or other removal of handicapped children from the regular educational environment occurs only when the nature and severity of the handicap is such that education in regular

classes with the use of supplementary aides and services cannot be achieved satisfactorily". While conformance to the principles of providing education in the least restrictive environment does not mean that all handicapped children will be educated in the regular program, it does emphasize the increased movement toward mainstreaming as a specific case of the least restrictive environment.

The definition of mainstreaming used for this study is adapted from Project PRIME (Programmed Re-entry into Mainstream Education, Kaufman, et al. 1973) [9], and refers to the process of meeting the needs of exceptional children in regular classrooms on a full or part-time basis, as appropriate to the specific child and class. Integration into the regular program includes three elements:

1. temporal integration - the amount of time spent in the regular program
2. instructional integration - participation in the academic environment of the regular program
3. social integration - acceptance by classmates

Mainstreaming also implies the development and implementation of a special education support system for the successful return of and maintenance of handicapped students in the regular education program.

Barriers To Mainstreaming

However, just because an educational innovation is legally mandated and adopted, change does not automatically become quantitatively reflected in the classroom. One cannot assume that a good idea will succeed on its own merit. Mahan and Chickedantz (1977), [10], reporting on a research study of deterrents to fully effective innovations in elementary schools, identified several major obstacles: a) conflicting educational attitudes, beliefs, and values of those involved in innovation; b) fear of incompetence with new ideas; c) realization that an innovation means more work; d) a feeling that as one supports an innovation, one confesses that the old way is a failure, and e) minimal communication among all the involved implementers.

Stannard (1976), [11], notes that "Too many have been instructed, have been well taught, have been convinced, that one of their professional duties is to identify, locate, and assist in the placement of exceptional children in special classes. We have been trained to exclude not to include children that are different." If regular classroom teachers believe they cannot teach handicapped children without an array of special materials and methods, then it is unrealistic to accept, with confidence, major responsibilities for teaching these children.

Importance of In-service Education

The importance of in-service education has been widely acknowledged. According to Herman Saettler (1976), [12], "Many elements are fundamental to the realization of national goals in education of the handicapped, but none is more important than the availability of school personnel in sufficient numbers and with appropriate competencies."

The requirement that special education services be provided to each handicapped child in the least restrictive environment makes it imperative that regular educators understand and empathize with the issues involved and are aware of appropriate strategies to insure these children their legally guaranteed educational opportunities.

Attitudes Toward Mainstreaming

Overline (1976), [13], in his research project report on attitudes toward mainstreaming, recommends that, the California Department of Education encourage school districts to develop in-service workshops which would focus on attitudinal change as well the technical aspects of mainstreaming. Too often, in-service focuses exclusively on technical aspects. Since attitudes are

predispositions for behavior, they often must be modified before educational personnel are open to and can generalize the technical skills learned in an in-service session. According to Allport (1935), [14], an "attitude" is a mental or neutral state of readiness; organized through experience, exerting a directive or dynamic influence on the individual. Kernan (1973), [15], identifies an attitude construct as consisting of three components:

1. cognitive - beliefs held about the attitude object
2. affective - referring to the like or dislike of an object
3. behavioral - the particular way in which an individual is disposed to act.

Schorn (1976), [16], in discussing what an attitude toward mainstreaming is, defined it as, "A relatively enduring organization of beliefs about children with various degrees and types of handicapping conditions predisposing a teacher to accept or reject these children into the regular school program." A major international study on public attitudes towards disabled persons has demonstrated that there is a common set of attitudes toward the disabled which cuts across categories of disability and situations. However, out of this general factor was

differentiated a hierarchal structure of attitudes related to a number of situational factors specific to exceptionality and/or interpersonal situations (Jones 1974), [17]. There has been some evidence that teacher attitude toward the handicapped is not much different than that of the general public. One of the primary functions of attitudes is to preserve an individual's self-esteem by organizing the environment so as to maximize opportunities for success and reward. Another factor which has been identified in studies on attitudes toward mainstreaming is that attitudes of special education personnel and regular teachers at the same school site tend to be positively correlated (Guerin and Szatlocky 1974), [18],. According to Mitchell (1976), [19], "The success or failure of mainstreaming in the schools depends in large measure on three factors:

1. The competence an thus the credibility of the resource teacher
2. The competence of the regular teacher
3. The attitude of these two professionals toward each other and toward the student."

Shotel, et al. (1972), [2Ø], observed that the provision for communication and interaction among resource room and regular class teachers might considerably affect teacher's attitudes and therefore, the success of the program.

Mark (1980), [21], studied the attitudes of 673 public elementary teachers toward mainstreaming educable mentally retarded students. Mark when analyzing teacher's ages, degrees, experience, grade levels or prior teaching experience concluded the following:

1. Elementary teachers of various age groups do not differ in their attitudes towards the mainstreaming of EMR children

2. Elementary teachers with Bachelor's degrees do not differ in their attitudes towards the mainstreaming of EMR children when compared with teachers who have Master's degrees

3. Elementary teachers with various years of teaching experience do not differ in their attitudes towards the mainstreaming of children

4. Elementary teachers who teach primary grade level children do not differ in their attitudes towards the mainstreaming of EMR children when compared with teachers who teach intermediate grade level children

5. Elementary teachers with prior experience of teaching mainstreamed EMR children have a more positive attitude towards the role of the EMR student in the mainstreaming concepts than do teachers with no prior experience.

In a paper presented at the Annual International Convention of the Council for Exceptional Children (1980), Herink [22] stated:

> "There is a small body of research which suggests that the most effective method of increasing social acceptance of the mentally retarded is through adult intervention. That there is a higher incidence of social interaction between the retarded and their classmates when some type of adult intervention is used."

Considerable research has shown that special education labels produce differential expectations in teachers and other professionals. However, when competence and labels have been evaluated, the labels seem to lose their importance.

It may be possible to alleviate the negative effects of special education labels by assigning or pointing out the levels of competence in a child. Special education personnel faced with the possibility of placing a handicapped child into a regular classroom may be able to improve a child's chances for favorable acceptance by emphasizing the areas in which the child is competent and de-emphasize those areas likely to reduce the expectations of the receiving teacher (Algozzine, et al. 1980), [23].

Aldridge in 1979, [24], investigated the knowledge and attitudes of regular elementary teachers before and after in-service training. Each administrative teacher provided ten weeks of in-service training (once each week) in their respective elementary schools. One major finding of this study was teachers with ten years or less of teaching experience scored higher on the post test.

In a study by Alexander (1984), [25], attitudes and their relation to selected variables were measured. Significant relations between the teacher's stated attitude from the questionnaire and 1) the year the teachers were certified; 2) the teacher's perceived degree of success teaching

handicapped students; 3) the teacher's perception of available support service; and 4) the teacher's perception of the level of administrative support. No relationship was found between the teacher's stated attitude and, 1) the number of handicapped students in class; 2) the type of school; 3) the number of semester hours in special education and, 4) the grade level taught.

Anderson (1982), [26], studied the relationship between teacher attitudes toward mainstreaming and knowledge about handicapping conditions. The results showed that after instruction on handicapping conditions, the posttests were significantly higher. There appeared to be a relationship between increased knowledge on handicapping conditions and more positive attitudes toward mainstreaming in Headstart.

In a study initiated as a result of a recommendation from a study done by Myers (1975), [27], on An Evaluation of Selected Illinois Public School Administrator's Attitudes Toward and Knowledge of Mainstreaming Handicapped Children, Carpenter (1976), [28], concluded that workshop residuals are affecting not only the special education students education, but are having impacts on total school curriculum, instructional methodologies, teacher-pupil and teacher-teacher relationships, all of which are resulting in better and more quality programs for all students.

DeLeo (1976), [29], attempted to determine if there were any differences among Key Educator Roles and among three population sizes Large, Medium, and Small, communities in attitudes toward integration of Mentally Retarded Children. A set of Lickert type of attitudinal items was developed and administered to 2,300 educators in the Bridgewater, MA, area. DeLeo concluded that the Director of Special Education had the best attitude followed by the special education teacher. The principal and the regular teacher had the least favorable. The principal and the regular teacher need more understanding of integration of special needs children into the classroom. The regular teacher had a slightly higher attitude than the principal for teacher involvement in integration.

In 1980, 152 elementary classroom teachers in grades K-6 in the Colorado Springs School District were pre and post tested, using the Rucker-Gable Educational Programming Scale. After receiving in-service education on alternative programming methods for handicapped children, Dix [30], concluded that concerted efforts should be made to keep the separation between general and special education to a minimum. Fenton (1980), [31], when comparing the academic achievement of handicapped students in regular versus special school assignments concluded

that physically handicapped secondary students in regular school settings showed significantly greater academic achievement than physically handicapped children placed in special school settings.

Fiorentino (1979), [32], examined the effectiveness of a short term group in-service program as a vehicle for improving regular classroom teacher's attitude towards and knowledge of mainstreaming with various degrees and types of special needs students. In a ten hour workshop (four 2.5 hours in length at the end of the school day) using the RGEPS pre and post test he concluded:

1. the in-service program contributed to a significant positive teacher attitude change towards mainstreaming
2. the in-service program contributed towards positive knowledge gains regarding correct placement of special education students
3. short term in-service education can be effective

Mitchell (1980), [33], concluded that in-service training regarding education of the handicapped was an important variable of attitude. Fitch (1984), [34], also examined teacher's attitudes and stated "Mainstreaming is an educational reality and not likely to go away. The attitude of the receiving teacher is a focal point of consideration. It is therefore necessary to continue examining attitudes of regular classroom teachers in whose care special needs students are placed."

Greene in 1977, [35], studied teacher attitudes in Nevada toward the inclusion of mentally retarded children in the public schools. The author concluded that the attitudes of administrative personnel towards special education should also be assessed. Hurtado-Portillo (1981), [36], also studied the effects of in-service education programs. Seventy elementary and forty-three secondary teachers participated in a review of literature, studies of mainstreaming, a history of in-service, studies that affect attitude change, and studies of the effects of in-service education programs on attitudes towards mainstreaming. The results indicate that in-service education programs of at least 20 hours in duration, do result in a positive attitude change regarding the practice of mainstreaming mildly handicapped students.

Joseph (1983), [37], investigated the attitudes of elementary administrators and teachers in 24 county elementary schools in Montgomery County, Ohio, toward the educational placement of handicapped children. A review of the literature stressed that the attitude of teachers and administrators are critical to the success of educational programs for handicapped children.

In another interesting study, Leonatti (1977), [38], determined how selected California elementary principals' placement decisions compared with a group of special education experts on the basis of their attitude toward,

and knowledge of, appropriate instructional placement for exceptional children. Data was gathered with a survey packet including a questionnaire to obtain demographic information and the Rucker-Gable Educational Programming Scale. Principals from forty-one schools representing six districts participated. The study concluded that the principals were less knowledgeable and less restrictive than the specialists. Also, in-service education for principals should emphasize knowledge and appropriate placement of all types and degrees of exceptionality.

Myers (1975), [39], explored the effectiveness of four two-week in-service training workshops for regular school administrators to identify variables which significantly influence attitudes toward and knowledge of alternative programming for handicapped children. Sixty participants were administered the RGEPS, prior to presentation. After a two-week workshop, the participants were again administered the RGEPS with certain demographical information being collected. The in-service training consisted of intensive small group, large group and individual work utilizing a modified format of the Principals Training Program from Texas. The data showed that there was a slight increase in each of the seven attitude score areas, but not significant at the .Ø5 level. Only the total number of years in education was

significant at the .05 level in predicting gain scores in knowledge areas of the Moderately Handicappeed and Learning Disabled.

O'Rourke (1979), [40], conducted two investigations. One to study the relationship between school principals and their staff's attitudes toward handicapped students and two, to investigate the relationship between school personnel's attitudes toward handicapped students and school morale as perceived by handicapped students. Results indicated that there is a significant relationship between building principals and their teaching staff attitudes toward handicapped students.

Perry (1979), [41], and Wersenstein and Gall (1978), [42], studied the supportive services available to regular class teachers significantly influenced their willingness to integrate mildly handicapped children into their classrooms and to identify the importance of each type of service as perceived by the teacher. Perry's conclusions are as follows:

1. the types of special education supportive services available to regular teachers had a significant affect on their attitudes
2. elementary teachers were apt to consider special services more valuable
3. teachers in grades 1-3 were more positive than teachers in grades 4-6
4. teachers having less than two years experience tended to be more receptive.

Wood (1979), [43], measured the effects of three differently types of special education in-service training

1. affective in-service training
2. cognitive in-service training
3. a placebo in-service activity

Wood concluded that affective in-service training was more effective than the cognitive and the placebo.

Breuning (1978), [44], noted that instructional academic material from regular class course offerings was used with 125 high school special education students. Performance data suggested with the proper teaching procedure and proper incentive motivation many special education students are capable of acceptable performance on regular class academic materials.

Mainstreaming provides integrated special education for exceptional children in regular classrooms rather than in special classrooms or schools. Mainstreaming can be accomplished successfully only if, among other things, the teachers with whom these children come in contact understand and accept them. They reported that regular teachers in four integrated schools who attended 15 lecture discussion sessions showed increased knowledge at the end of the course as compared with the start. Harasymiw and Horne (1976), [45], reported that teachers who taught in integrated schools and participated in

University conducted workshops, practicums, and seminars during the academic year endorsed mainstreaming more than the teachers who neither participated in the training program nor acquired experience in the integrated setting.

Yates (1973), [46], presented 100 hour laboratory experimental training program to 30 regular teachers in kindergarten through grade five with 10 teachers serving as controls. He reported gains in factual knowledge and a greater willingness to integrate some types of exceptional children into regular classrooms. Willingness to work with exceptional children is probably a more valid indicator of positive attitude change than mere verbal endorsements of positive statements about them. Means and standard deviations of scores on the knowledge and attitude scale was summarized. The comparison of the t test indicated that the experimental group surpassed the traditional group on attitudes. A traditional lecture-discussion course which is economically and easily implemented may provide a means of preparing regular teachers for mainstreaming and in turn, increase the likelihood of success in mainstreaming programs.

Testing Instrument

In a review of various instruments to measure attitude change the author of this document selected the RGEPS (Rucker-Gable Educational Programming Scale) as best

suited for his needs. The purpose of the RGEPS, as stated by James J. McCarthy [47], in the Buros Eighth Mental Measurement Yearbook, is to measure attitude toward and knowledge of placement programs for handicapped children. The authors of the test suggest its use as follows:

1. a measure of the readiness of educational decision makers to move mildly handicapped children closer to the mainstream

2. aids in the planning and evaluating of in-service workshops on handicapped children

3. measures the impact of teacher preparation programs on attitudes and knowledge about handicapped children in both regular and special education.

McCarthy summarizes his comments by stating that the RGEPS is an innovative and timely scale designed to assess knowledge about educational placement.

Data from the RGEPS can provide evidence of a school's readiness to move handicapped children closer to the mainstream of education. Certain schools will be more accepting of such programming. When a change in educational programming is considered, the involvement of the building principal is of primary importance. It has been found that teachers tend not to carry out new programs without the direct approval and involvement of their principal (Metzner, 1970), [48]. A logical corollary is that principals will be more inclined to adopt a new approach if their superintendent is involved

in and approves of the approach. If principals have not had a special education input in their training program, it is recommended that they be given such input through a workshop or class before any change is initiated that would move handicapped children closer to the regular classrooms in their buildings.

Effective School Practices

Skilled administrators can help teachers through careful supervision. Traditionally, administrators have used the supervisory role to evaluate teachers' performance. In viewing their role as evaluator instead of supervisor, many principals have passed up an opportunity to help teachers strive towards effective teaching. These administrators failed to provide much needed support for the classroom teacher. Typically, a principal appears in a teacher's classroom with minimal notice and with very general ideas of what to observe and evaluate. The teacher has little knowledge of what the principal is looking for. Because the principal's expectations are unknown, the teacher feels threatened by and resistant to supervision (Acheson and Gall 1980), [49]. Administrators can avoid this typical problem by separating the role of the evaluator from the role of the facilitator. As facilitator, a principal can be a valuable instructional leader.

Since effective classrooms for regular and/or special students share so many features, the role of the principal in facilitating best practices can cut across labels. Administrators and supervisors can help bring about more effective teaching in classrooms.

Anderson, Evertson, and Brophy [50], found that just informing teachers about techniques that yield results increased student achievement. The basic IEP requirements in PL 94-142 are based on an identical philosophy: instructional goals should be set clearly, reviewed regularly, and reset periodically in the overall curricular goals. The IEP should be structured for each student around the students individual needs and capabilities. There should be maximum participation in decision-making for the student.

Administrators can help bring about more effective classroom practices by being aware of what constitutes effective practice and by passing on new ideas to teachers. Administrators are crucial to improving effectiveness at the school level. Effective schools seem to incorporate the following elements:

1. clear academic and social behavior goals
2. order and discipline
3. high expectations
4. teacher efficacy
5. pervasive caring

6. public rewards and incentives

7. administrative leadership

The essential ingredient seems to be that the administrator recognize what is needed and sees that all things needed for effective education are provided.

Marcus (1976), [51], analyzed data from selected schools. His analysis of the survey data showed that schools in which principals emphasized the importance of selecting basic instructional materials and made more of the decisions in the instructional area were more likely to show achievement gains in the subject area of reading and mathematics.

The underlying purpose of this study is to derive an analytical profile of a successful school that can be a replication model for school districts interested in implementing similar programs.

Effective schools concentrate on the following areas:

1. equality of educational opportunity at school
2. parent and community involvement
3. characteristics of reading and math instruction, including relevant teacher attitudes and instructional techniques
4. availability and use of specific instructional resources in reading and math
5. organizational climate at school

Four key findings concerning administrators suggest the importance of leadership to school success in the

in-depth study. Gains in math achievement were more likely to occur in schools where:

1. administrators assumed more responsibility for policy decisions
2. administrators emphasized the importance of selecting basic instructional materials
3. administrators assumed more responsibility for the selection of basic instructional materials
4. administrators effectively communicated a point of view concerning teaching practices.

Excellence in education isn't a state of being but a process of becoming. Teachers become excellent by studying their students, creating tailored learning experiences and evaluating the long term effects of those experiences. Donaldson (1985), [52], in his study on school improvement states "The excellence of a school lies in how its internal processes work to constantly improve its performance." Boyer [53], and Goodlad [54], both agree that the better preparation of principals and teachers, along with help and time for designing school programs at the site, are necessary ingredients of school improvement.

In five years Milwaukee's Project RISE has significantly raised the achievement levels of students in 18 elementary schools without changes in administration or in teacher or student composition and no additional monies. Utilizing in-service activities staff members

verbally and behaviorally expressed the belief that all their students could achieve. Principals involved teachers in important planning and decision-making processes, generating a sense of ownership of their school.

Effective schools research has become one of the most talked about phenomena in education (Brandt, 1982; Brookover, et al. 1982; Edmonds 1979; Purky and Smith, 1982; Squires, et al. 1983), [55]. A primary reason for this popularity is the clear cut connection to the possibility for improvement; if a few schools can serve disadvantaged children well, than other schools can too. Because school improvement is complicated by the problems involved in change (Goodlad, 1975; Herriot and Gross, 1979; Miller, 1981; Rogers and Shoemaker, 1971) [56], school effectiveness research also focuses on how to implement change. Miller et al. 1984, [57], in a study in Kentucky schools concluded that any lasting change in a school will occur because the staff itself changes norms of expectations, appropriate role definitions, standards of accountability, and patterns of behavior.

Sapone (1985), [58], focuses upon the importance the school principal has in demonstrating instructional leadership within a school. Prominent within this leadership role is the principal's professional

preparation and experiences, and the provisions the principal makes in clarifying the role expectations of all staff members. This leadership role should project positive images and influences, that shape the direction effective schools should pursue. Yet, in spite of the overpowering research literature on the influence that effective principals demonstrated, many principals are perceived by their staff, their administration, and their community as being maintenance oriented managers, i.e., focusing upon the day-to-day tasks that may have little influence on the quality of education. In accomplishing what may be perceived as low-level managerial tasks, the effective principal can negate his priority role, i.e., enhancing the instructional leadership of the staff as it impacts on student achievement.

Staff development programs are often a one-week workshop by visiting consultants who expound the benefits of certain alternative practices. The success of the one-week workshop often depends on who gets shot with what, and the success of the visiting guru. At best this process is time saving and cost efficient. The success of long-term, locally based and directed change efforts depends on the local change facilitator. At their best, these newer methods provide ongoing in-service programs that reflect the expanding knowledge base about teaching and learning.

The Research and Development Center for Teacher Education at the University of Texas has combined the strengths of both approaches. The result is the RITE program (Research in Teacher Education). The RITE model was the core of an experimental study of teacher behaviors and stall development practices which found that researched-based knowledge could be used effectively in improving teaching practice. Edwards and Barnes (1981), [59], utilized research findings from change studies and effective teaching to assist staff developers to make informed decisions and plans for staff development activities. By starting with school administrators, the RITE model reaches more people than would be possible working only with teachers. A district's capacity for school improvement increases when the system enhances the knowledge and skills of its leadership cadre.

The RITE model begins with school leaders and principals. These participants then work directly with classroom teachers before and during the school year.

Summary

A review of related literature clearly indicates that when we consider the mainstreaming of handicapped students there are many elements for consideration. They are:

1. federal and state regulations
2. attitudes of those involved
3. professional training
4. leadership of the principal
5. staff development activities

The mainstreaming of handicapped students is not a single isolated activity. But instead, is a process with various sub-activities which all must be appropriately addressed if mainstreaming is to be truly effective and a benefit to all students and staff members involved.

Mandated state and federal regulations support the concept of mainstreaming handicapped students and keeping them as close to the regular classroom as possible. Although educational innovations are legally mandated, mandates alone do not guarantee an event to take place, nor the quality of that happening. Often barriers to mainstreaming prevent mainstreaming from occurring. The barriers are often based upon human frailties. Obstacles such as conflicting educational attitudes, beliefs and

values, fear of incompetence, added responsibility of work, and general feelings of insecurity, prevent teachers from changing their behaviors.

To overcome these barriers, in-service education and educational leadership are necessary. Too often, in-service education focuses upon technical aspects. Studies on public attitudes towards disabled persons has demonstrated that teachers reflect similar attitudes concerning people that are different as the general public. Research has shown that special education labels produce different expectations in teachers. Only when the competence of the student is emphasized does the label lose its influence.

If attitudes affect people's behavior, then the question remains, how does one go about changing attitudes? Education through in-service training has been long recognized as one effective strategy. In-service education generally emphasizes cognitive learning. However, research points out that affective learning has a greater influence on changing attitudes.

Regardless of the types and the amount of in-service training an educator receives, without the support and the involvement of the building principal, the mainstreaming of handicapped children will have little success. Skilled administrators can help teachers through careful

supervision. Principals must shrug off their perceived managerial role and assume the role of educational leader.

Staff development to be effective must involve the building principals. Successful models for staff development begin with the training of building principals, then utilize their talents for enlarging the in-service experience to remaining staff members. It is felt that through the use of this model, in-service education will be most meaningful and involve the greatest number of staff members. In-service workshops should not be less than 20 hours in duration.

In reviewing data on effective schools, schools where the principals emphasized the importance of materials, where the principals made more of the basic decisions in the instructional area, and where the principals effectively communicated expectations to staff and parents, were the schools that showed the greatest student achievement.

In reviewing various instruments to measure attitude change the Rucker-Gable Educational Programming Scale seems to be well suited for this type of research. Data from the RGEPS can provide evidence of a school's readiness to move handicapped children closer to the mainstream of education.

In conclusion, several factors determine if handicapped students will be mainstreamed successfully. Foremost it appears that educational attitudes must first be changed. Favorable attitudes will lead to favorable behaviors. To accomplish this task, principals must become actively involved through a planned program of in-service education. Principals should also actively participate in teacher training activities. Through the involvement of teachers and other staff members within a school, the most effective educational programming can be achieved for the mainstreaming of handicapped students.

C H A P T E R I I I

METHODOLOGY

In the Taunton Public School System, the principal has been designated as the TEAM chairman for his school. The TEAM for each individual evaluation, consists of a building administrator, a teacher, the parent(s), the child (at his/her request), specialists who have conducted assessments, and other individuals appointed by the Supervisor of Special Education, i.e. nurse,psychologist, social worker, physician, etc. It is the principal's responsibility to establish an internal screening committee within the school building for the purpose of recommending specific ways in which the regular classroom environment can be modified to meet the needs of referred students (see Appendix B).

Since the building principal provides the educational leadership for that particular school, it is imperative that every principal provide the very best educational program possible for students with special needs. It is the intent of this researcher through in-service education to positively change Principals' attitudes towards the mainstreaming of handicapped students. Research shows that nothing happens in a school building if the principal

is opposed to it (Metzner 1970), [60]. According to Metzner, attitude controls behavior, therefore, it is logical that in order to affect an attitude change the building principal would seem to be the person to start with.

Design of the Study

Twelve principals in the Taunton Public School System (7 elementary, 4 middle, 1 high school) agreed to participate in this research project. This number represents the total population of all school principals in the Taunton School System with the exception of one elementary principal, who due to illness, was unable to participate.

The group of principals received 20 hours of intensive in-service education (weekly two hour sessions for ten weeks). The length of the in-service activity was based upon the research of Hurtado-Portillo (1981), who concluded that in-service programs of at least 20 hours in duration, do result in a positive attitude change regarding the practice of mainstreaming mildly handicapped students.

All principals received pre/post testing using the Rucker-Gable Educational Programming Scale. Using the null hypothesis, this researcher postulated that the prescribed in-service education based upon the data

collected by Peters and Austin, will not change the principals' attitudes towards the mainstreaming of handicapped children. Specifically, the null hypothesis states, "In-service education does not change principals' attitudes towards towards the mainstreaming of handicapped children." This hypothesis will be proven, modified or rejected in the light of the collected data.

The null hypothesis would assert that the coefficient of correlation between the pre- to posttest results is zero. By referring to the table of t values, the researcher determined that a t value greater than 2.201 was necessary to reject the null hypothesis at the 5 per cent level of confidence. Such a coefficient would probably result from sampling fluctuations in not more than five in a hundred cases.

The researcher will attempt, via the application of a t test, to measure a significant difference between the mean scores of the pre and post tests for knowledge and attitude, thus resulting in the rejection of the null hypothesis.

The backrounds of all principals will be qualitatively analyzed using the Pearson product-movement correlation, in an effort to determine the influence of the following factors on attitude and knowledge gains.

1. age
2. years in education
3. years as a principal
4. number of courses in special education

The in-service activity developed by the researcher was entitled "Improving Leadership Skills-Developing Positive Attitudes". The primary goal of these workshops was to have participants develop new insights and leadership skills in the directing of special needs programs. In-service objectives were as follows:

1. Through a seminar format assist participants to develop skills and attitudes for assuring high quality programs in special education.
2. Through readings and discussion of of the material in "A Passion for Excellence" [61], participants will review their qualities of leadership and the effects these qualities have on the provision of services for children with special needs.

Through ten 2-hour sessions participants will read and discuss the book "A Passion for Excellence" by Peters. The Leadership Direction Activities in the book will be completed by having participants relate these activities to several education services in their schools.

According to Sapone, leadership makes the difference. The ability to sustain leadership in an area such as special education is crucial. The world of business has recognized this and through the books written by Tom Peters, (In Search of Excellence and a Passion for Excellence), significant developments have taken place in business leadership. The question is, can the programs used successfully in industry be successfully transferred to special education. Special education laws have been passed and great programs have been developed. In the process of developing laws and programs great leaders have emerged. To assume the continuity of these programs, leadership is called for in a sustained fashion.

Prior to the in-service activity this researcher met individually with each participant, discussed the project, the principal's needs and obtained consent from each participant to participate. At the time of the initial meeting each participant was asked to complete the Rucker-Gable Educational Programming Scale as a pretest. The administration of the RGEPS was used to establish a base regarding the attitude of the participant regarding the placement of special needs students.

Improving Leadership Skills-Developing Positive Attitudes

Workshop Agenda

Session I

a. Discussion of In-service goals

b. Principal's suggestions regarding in-service format

c. Film-"Out of District Placements"

Session II

a. Principles of Special Education

b. Review of 766 regulations (including discipline)

c. Review of Taunton Public Schools referral procedures

Session III

a. Importance of leadership

b. Classroom strategies prior to 766 referral

c. How to effectively utilize resource personnel

Session IV

a. Consumers of service

b. Classroom strategies for receiving teachers

c. Ideas for mainstreaming activities

Session V

a. Innovations

b. Chapter 188 - Essential Skills Grants

Session VI

a. Innovations (continued)

b. Working with the parents of 766 students

c. TEAM meeting procedures

d. Simulation activities

Session VII

a. Coaching staff members towards excellence

b. Utilizing the building committee for successfully determining educational activities

c. Principal's roundtable with successful out-of-district administrators

Session VIII

a. Individual school improvement projects

b. Leadership training

c. Principal's issues

Session IX

a. School improvement projects (continued)

b. Leadership training

c. Simulation activity

d. Disciplining students with special needs

Session X

a. Case studies

b. Behavior therapy

c. Goal attainment scale

d. Posttest RGEPS

Resource Materials

1. Comprehensive Special Education - Chapter 766, MA. MGL 603; CMR S28.00 (1985 revised)

2. Educating Exceptional Children - 3rd ed. (1985) Guilford, Conn. Duskin Pub. Group

3. Peter, T., & Austin, N. (1985). A passion for excellence - The leadership difference. New York, N.Y.: Random House

Dr. William Murphy and Dr. Tracy Baldrate professors in the department of special education at Bridgewater State College served as presenters for these workshops. Although the agenda was prepared by the researcher, it was felt that additional expertise in the area of special education was essential. The researcher also sought and successfully obtained a Commonwealth In-service Institute Grant to underwrite the cost of this research project.

Instrumentation

Two instruments were used to collect data. One, the Rucker-Gable Educational Programming Scale (RGEPS), and the second being an in-service evaluation form prepared by the researcher. The following data collection time table was used.

Data Collection Timetable

1.	Formulation of Leadership Seminar Objectives	October, 1985
2.	Formulation of In-Service Group	December,1985
3.	Administration of Pre-test	December,1985
4.	Ten 2-hr in-service training sessions	January-March, 1986
5.	Administration of Post-test	March, 1986
6.	Completion of In-service evaluation form	March, 1986
7.	Analysis of data	April, 1986

The Rucker-Gable Educational Programming Scale was been developed to measure attitude toward and knowledge of appropriate program placements for handicapped children. One possible use of this scale is to measure the readiness of a teacher, administrator, or school to move mildly handicapped children closer to the mainstream. The RGEPS can also be used to aid in the planning and evaluating in-service workshops on handicapped children for teachers and administrators.

The RGEPS consists of 30 brief descriptions of actual children referred for special education services. These items primarily describe the behaviors of children that

are either mentally retarded, emotionally disturbed, or learning disabled. Although 10 items are included for each of these areas, the classification is not always clear-cut due to the natural overlapping between these somewhat artificial designations. The descriptions range from very mild to relatively severe in terms of degree of disability and offer a good cross-section of various types and degrees of handicapping conditions.

Participants were asked to choose what they felt was the best educational setting for each child at the present time from the continuum of seven educational programs of service. They were asked to assume an ideal set of circumstances. That is, they were to assume that all of the programs or services were available and competently staffed.

RGEPS Continuum of Services

Regular Classroom - no basic change in teaching procedures.

Consultation - regular classroom with specialists available for consultation with teacher (or parent) whenever needed.

Consultation & Direct Services - regular classroom with specialists available in the school to consult with teacher and provide short-term direct services to student.

Resource Room - regular classroom with resource room services (special education teacher providing supplemental instruction) provided on a continuing basis in which the student can participate for as much as two hours each day.

Part-Time Special Class - student enrolled in a special class for the majority of each day, but enters regular classroom for certain subjects.

Full-Time Special Class - student assigned to a self contained special class on a full time basis.

Not - student placed in a residential school, hospital program, treatment center, etc. because he or she cannot reasonable be handled within the context of regular or special education.

Attitude scores are calculated directly from the respondents placement choices. A total attitude scale is calculated by summing the weighted responses to the thirty items. This total score reflects attitude toward handicapped children representing a cross-section of types and degrees of handicapping conditions. Six attitude sub-scores are also derived. Three of these are based on ten items each and represent attitudes toward children with mental retardation, emotional disturbance, and learning disabilities. The remaining sub-scores reflect attitudes toward three item clusters differentiated on the

basis of their degree of disability, i.e., mild (8 items), moderate (16 items), and severe (6 items).

The RGEPS also provides measures of knowledge of appropriate placement of handicapped children. A respondent's placement choice on each item is compared to the average placement on that item by a group of experts in special education employing the Euclidean distance formula [62].

$$\sqrt{\sum_{i=1}^{N} (X_i - \bar{Y}_i)^2}$$

Where: X_i = a respondent's placement choice on item i.

$\bar{Y}_i$ = the mean placement choice for the experts on item i.

Knowledge is reflected in the difference between the respondent's choices and those of the experts. As with attitude, there is a total knowledge score as well as knowledge sub-scores for the three clusters of items differentiated as to type of handicapping condition and three clusters differentiated by the degree of their disability

When completing the RGEPS, the choices available to a respondent represent a continuum of services. Moving down the scale from the regular classroom, each step represents

(a) moving the child farther from the regular classroom, (b) increasing the support services to the regular class teacher, and (c) less involvement on the part of the regular class teacher. Thus, a teacher's placement of a child can be seen as a measure of attitude toward handicapped children which is represented by how near or far away from the regular class he or she wishes to place the child. Attitude scores can be thought of as a measure of the social distance a teacher wants to maintain between herself or himself and a variety of types and degrees of handicapping conditions. Attitude scores can also be regarded as a measure of the respondent's willingness to move handicapped children closer to the mainstream of education.

One must be careful when interpreting RGEPS attitude scores. The highest possible scores would be obtained by placing all the children in the regular classroom. Such a score might represent an unrealistic placement and might be based upon what the respondent felt was socially acceptable or upon a lack of knowledge. Therefore it is important to consider attitude scores in conjunction with knowledge scores.

Knowledge on the RGEPS is defined as a respondent's agreement with a group of thirty-five experts in special education. These experts are identified as seven faculty

Table 4

Experts' Placement Decisions On RGEPS Items

Ordered Numerically

Item Number	Disability Area	Mean Placement	Standard Deviation
1	LD	4.17	.95
2	MR	3.60	1.09
3	LD	4.43	.65
4	ED	5.26	1.04
5	ED	4.29	.89
6	LD	5.46	.98
7	ED	5.49	1.07
8	LD	3.54	.70
9	MR	1.71	.75
10	ED	4.54	1.04
11	ED	2.66	1.08
12	MR	1.09	.28
13	MR	4.17	1.15
14	ED	3.23	1.06

Table 4 (continued)

Item Number	Disability Area	Mean Placement	Standard Deviation
15	MR	5.03	1.10
16	ED	6.43	.61
17	MR	3.83	1.04
18	LD	3.94	.76
19	ED	5.37	.88
20	MR	2.69	.99
21	MR	3.43	1.04
22	LD	4.26	.98
23	ED	5.69	.80
24	LD	4.54	.85
25	MR	2.14	.65
26	ED	4.51	1.01
27	LD	4.63	.84
28	LD	5.49	.98
29	MR	1.91	.45
30	LD	4.03	.82

members in special education at the University of Connecticut representing expertise in either mental retardation, emotional disturbance, or learning disabilities; Directors of USOE funded university training programs in special education administration; and Directors of university training programs in either mental retardation, emotional disturbance, or learning disabilities (see Table 4).

Attitude and knowledge scores may be interpreted differently depending on the type of respondents being sampled. For administrators involved in making placement decisions, such as principals and special education administrators, knowledge is probably the more important area. Administrators need to have an understanding of the important behavioral variables to consider in making appropriate placements

The reliability of the RGEPS was calculated using the method described by Guilford [63]. The interrater reliability supported in four major studies ranges from .87 - .97 percent

The construct validity of the RGEPS has also been supported by examining group differences before and after training experiences. In four major studies the validity of the RGEPS was as follows - .81, .86, .94, and .96.

The second instrument used for data collection was an

evaluation form developed by the researcher to collect information concerning the effectiveness of the workshop (see Appendix C).

Summary

Twelve principals in the Taunton Public School System participated in a research project to assess "The Effects Of In-service Training On Principal's Attitudes Towards The Mainstreaming Of Handicapped Students". This selected group of principals received 20 hours of in-service education based upon the researcher's own design. Use of a t test showed the significance of the difference between the mean scores of the pre and post test through a statistical value. When located on the appropriate statistical table (table of t), this measure indicates a level of confidence for rejection of the null hypothesis. If the significance of the difference exceeds the 5 percent level of confidence the null hypothesis will be successfully rejected.

All principals were pre and post tested using the Rucker-Gable Educational Programming Scale. In addition, the backrounds of all principals were qualitatively analyzed to determine the influence of the following factors; (1) age; (2) years in education; (3) years as a principal; and (4) number of courses in special education on the pre and post test scores.

The RGEPS was developed to measure the attitude toward and knowledge of appropriate program placements for handicapped children. The RGEPS consists of thirty brief descriptions of actual children referred for special needs services. Principals were asked to choose what they felt was the best educational setting for each child at the present time from the continum of seven educational programs. In addition to the RGEPS the researcher developed an additional data collection instrument which will determine the usefulness of the in-service activity. There are a number of possible uses for outcomes of this research. Data from this study can provide evidence of a school's readiness to move handicapped children closer to the mainstream of education. Information may also be provided as to the kinds of children principals are most willing to include in a regular classroom at a given time. It was also possible to determine if the material developed by the researcher and incorporated into the in-service activity was effective. It was hoped that the results of this study would be beneficial to educational practitioners everywhere and assist them in their efforts to provide improved educational programming for handicapped children in their charge.

Endnotes

60. Samuel Metzner, "School University Partnership: A Tale of Dichotomous Desires," Phi Delta Kappan 51: 328.

61. Tom Peters and Nancy Austin, A Passion for Excellence - The Leadership Difference (New York: Random House, 1985), 437pp.

62. Chauncy W. Rucker and Robert K. Gable, Rucker-Gable Educational Programming Scale Manual (Storrs: University of Connecticut, 1974), p. 5.

63. J.P. Guilford, Psychometric Methods, 2nd ed. (New York: Teacher's College, 1954), p.395.

C H A P T E R I V

STATISTICAL ANALYSIS OF THE DATA

A statistical computational program at the Triangle Universities Computational Center, University of Connecticut, was used to assist this researcher in the analysis of the data. This program entitled TSAR (Tele-Storage and Retrieval System), was selected due to the fact that attitude scores could be calculated with relative ease and in fact, this researcher did calculate the attitude t scores for each of the thirty items. However, calculating knowledge t scores, summary scores and Pearson's Product-Moment Correlation Coefficients (r), consists of an extremely time consuming process which makes the problems of scoring errors more likely. This chapter presents the analysis of the data and the interpretation of its results.

Purpose of the Study

What will be the effects of in-service training on principals' attitudes towards the mainstreaming of handicapped students? To assess the effects of the prescribed in-service program, this researcher compared the pre-to posttest results of the thirty items of the Rucker Gable Educational Programming Scale. Secondly, this researcher grouped these items into two

categories, the area of disability; mental retardation, emotional disturbance, learning disabilities, and by the degree of disability; mild moderate and severe.

The t value for the thirty individual items and the two summaries were then calculated. To determine whether the t value was significant, the degrees of freedom (df) were first obtained. The degrees of freedom for this study was df=N-1 or df=11. From the t tables we find that the t value that is significant at the .05 level for 11 is 2.201. The obtained value in all t scores must be greater than 2.201 to refute the null hypothesis.

Thirdly, this researcher analyzed the principals' backround variables of age, years in education, years as a principal and the number of special education courses taken, to determine if these variables influence attitude. To assess this influence, two sets of data were analyzed. One, the posttest results and secondly the pre-to posttest gain. To test the significance of r the degrees of freedom (df) were obtained. The degrees of freedom for r is df=N-2 or df=10. From the r tables we find that for the r value to be significant at the .05 level a score of .576 or greater must be obtained. Fourthly, at the completion of the in-service workshop, this researcher asked each participant to voluntarily complete a Workshop Evaluation. The summary of participant responses are

discussed in this paper utilizing average scores and participant suggestions.

In order to clearly interpret the data in the test instrument (RGEPS), this researcher utilized the following data defining the experts' mean placement scores. This data was obtained from the RGEPS test manual. The RGEPS items are ordered by disability as shown in Tables 5 and 6 on p.66-68, and by degree of disability as shown in Table 7 on p.69. This information is futher summarized in Table 8 shown on p.71.

Table 5

Rucker-Gable Educational Programming Scale

Items Arranged by Area of Disability

Mental Retardation

Items	15	13	17	2	21	20	25	29	9	12

Emotional Disturbance

Items	16	23	7	19	4	10	26	5	14	11

Learning Disabilities

Items	28	6	27	24	3	22	1	30	18	8

Table 6

Experts'Placement Decisions on RGEPS Items

Ordered by Disability

Disability Area	Item Number	Mean Placement	Standard Deviation
Mental Retardation	15	5.03	1.10
	13	4.17	1.15
	17	3.83	1.04
	2	3.60	1.09
	21	3.43	1.04
	20	2.69	.99
	25	2.14	.65
	29	1.91	.45
	9	1.71	.75
	12	1.09	.28
Emotional Disturbance	16	6.43	.61
	23	5.69	.80
	7	5.49	1.07
	19	5.37	.88

Table 6 (continued)

Disability Area	Item Number	Mean Placement	Standard Deviation
Emotional Disturbance	4	5.26	1.04
	10	4.54	1.04
	26	4.51	1.01
	5	4.29	.89
	14	3.23	1.06
	11	2.66	1.08
Learning Disabilities	28	5.49	.98
	6	5.46	.98
	27	4.63	.84
	24	4.54	.85
	3	4.43	.65
	22	4.26	.98
	1	4.17	.95
	30	4.03	.82
	18	3.94	.76
	8	3.54	.70

Table 7

Experts' Placement Decisions on RGEPS Items

Ordered by Degree of Disability

Level	Item Number	Mean Placement	Standard Deviation
Mild	16	6.43	.61
	23	5.69	.80
	28	5.49	.98
	7	5.49	1.07
	6	5.46	.98
	19	5.37	.88
	4	5.26	1.04
	15	5.03	1.10
Moderate	27	4.63	.84
	10	4.54	1.04
	24	4.54	.85
	26	4.51	1.01
	3	4.43	.65
	5	4.29	.89
	22	4.26	.98
	13	4.17	1.15

Table 7 (continued)

Level	Item Number	Mean Placement	Standard Deviation
Moderate	1	4.17	.95
	30	4.03	.82
	18	3.94	.76
	17	3.83	1.04
	2	3.60	1.09
	8	3.54	.70
	21	3.43	1.04
	14	3.23	1.06
Severe	20	2.69	.99
	11	2.66	1.08
	25	2.14	.65
	29	1.91	.45
	9	1.71	.75
	12	1.09	.28

Table 8

Experts' Means and Standard Deviations for RGEPS Score Areas

Score Area	Number of Items	Attitude Mean	Stand. Devia.	Knowledge Mean	Stand. Devia.
Mild	8	44.20	3.79	2.56	.63
Moderate	16	65.14	6.57	3.61	.86
Severe	6	12.20	2.27	1.68	.73
Mental Retardation	10	29.60	3.75	2.72	.70
Emotional Disturbance	10	47.46	5.16	2.87	.85
Learning Disabilities	10	44.49	4.01	2.57	.79
Total	30	121.54	9.52	4.82	.93

TABLE 9

RGEPS - Pre-to Posttest Results for Item # 1

1. Nancy is a third grader who has difficulty keeping her place during oral reading. Her handwriting is labored, the letters are very large and irregular, and she cannot write on the lines. Her work is disorganized. She gives up easily and needs alot of personal attention.

(N=12)

7 - Regular Classroom <----------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain	/ -Gain
305	6	4	+2	
45	2	4		-2
57	6	4	+2	
42	5	4	+1	
27	6	5	+1	
50	4	6		-2
65	5	4	+1	
56	5	6		-1
40	5	6		-1
20	5	6		-1
505	5	3	+2	
35	5	4	+1	
Sum	59	56	3	
Mean	4.91666	4.666666	Experts 4.17	

t for Attitude =.492504 <.05 (2.201)

Item one reflects a student with a moderate degree of learning disabilities. Table 9, shows that there was no significant difference in attitude between the pre and posttest results. However, in the area of knowledge, the subjects moved closer to the placement of experts.

TABLE 10

RGEPS ~ Pre~to Posttest Results for Item # 2

2. Jim's achievement is approximately two years below expectations for his age of nine. He has great difficulty understanding and following directions and forgets them quickly. He seems to lack any social skills.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / ~Gain
305	5	5	Ø
45	3	4	~1
57	3	4	~1
42	2	4	~2
27	4	4	Ø
50	4	4	Ø
65	4	3	+1
56	4	5	~1
40	4	2	+2
20	3	2	+1
505	6	5	+1
35	3	2	+1
Sum	45	44	1
Mean	3.750000	3.666666	Experts 3.60

t for Attitude =.2478981 <.05 (2.201)

Item two reflects a student possessing a moderate degree of mental retardation. Again, as shown on Table 10, there was no significant difference in attitude. Participants did not significantly increase in knowledge, but did move closer to the experts' mean scores.

TABLE 11

RGEPS - Pre-to Posttest Results for Item # 3

3. Clifford, a nine year old, is very alert and imaginative; he is able to discuss a variety of topics intelligently, but is unable to read.

(N=12)

7 - Regular Classroom <----------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain	Knowledge/Attitude -Gain
305	4	3	+1	
45	4	5		-1
57	6	5	+1	
42	4	3	+1	
27	5	4	+1	
50	2	4		-2
65	4	3	+1	
56	4	4	0	
40	6	6	0	
20	5	5	0	
505	4	5		-1
35	5	5	0	
Sum	53	52	1	
Mean	4.416666	4.333333	Experts 4.43	

t for Attitude =.288675 <.05 (2.201)

A student with a moderate degree of learning disabilities is discussed. As table 11 shows, pre-to posttest results indicate little change in attitude and the participants moved further from the experts' mean score in the area of knowledge.

TABLE 12

RGEPS - Pre-to Posttest Results for Item # 4

4. Myron is a sixth grader who often becomes agressive in class. His relationships with other children are usually quarrelsome and he is prone to get into trouble when left alone.

(N=12)

7 - Regular Classroom <~~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	2	3	-1
45	6	6	Ø
57	5	6	-1
42	5	5	Ø
27	7	6	+1
50	6	2	+4
65	6	6	Ø
56	3	6	-3
40	3	2	+1
20	6	2	+4
505	5	6	-1
35	5	2	+3
Sum	59	52	7
Mean	4.91666	4.333333	Experts 5.26

t for Attitude =.9376726 <.05 (2.201)

In item four, the behavior of a student with a mild degree of emotional disturbance is discussed. Table 12 shows no significant change in attitude and in the area of knowledge, the group moved further from the experts' mean score.

TABLE 13

RGEPS - Pre-to Posttest Results for Item # 5

5. Ed repeated kindergarten because of his immaturity and is now having trouble doing his first grade work. If he is included in a group activity, he constantly teases the smaller children. He has to be watched constantly or he will destroy their work in a sadistic manner.

(N=12)

7 - Regular Classroom <---------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	3	3	Ø
45	3	6	-3
57	5	6	-1
42	2	3	-1
27	6	3	+3
50	6	3	+3
65	5	6	-1
56	6	6	Ø
40	4	5	-1
20	3	3	Ø
505	5	3	+2
35	2	2	Ø
Sum	50	49	+1
Mean	4.16666	4.083333	Experts 4.29

t for Attitude =.1620271 <.05 (2.201)

Item five outlines the behavior of a student with a moderate degree of emotional disturbance. In Table 13, the pre-to posttest results show no significant change in attitude and the participants, in the area of knowledge, moved further from the experts' mean placement score.

TABLE 14

RGEPS ~ Pre~to Posttest Results for Item # 6

6. Jason, age six, occasionally prints letters backwards, writes from right to left, and is restless in class. His parents are concerned that he is still on reading readiness material rather than in a reading group like his classmates

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain	/ ~Gain
305	5	4	+1	
45	4	7		~3
57	5	7		~2
42	5	6		~1
27	5	4	+1	
50	3	4		~1
65	6	5	+1	
56	4	5		~1
40	3	4		~1
20	5	4	+1	
505	4	4	Ø	
35	4	3	+1	
Sum	53	57	~4	
Mean	4.41666	4.750000	Experts 5.46	

t for Attitude =.8424252 <.05 (2.201)

A student with mild learning disabilities is described in item six. Table 14, results indicate no significant change in attitude and in the area of knowledge, the principals moved closer to the experts' placement.

TABLE 15

RGEPS ~ Pre-to Posttest Results for Item # 7

7. Herb has made a poor adjustment to his first grade class despite his capability for learning. He has difficulty participating in group functions because he is so mischievous. He often fails to respond to discipline.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	5	6	-1
45	5	5	Ø
57	5	6	-1
42	5	6	-1
27	4	6	-2
50	6	6	Ø
65	6	5	+1
56	4	7	-3
40	5	3	+2
20	6	6	Ø
505	6	5	+1
35	6	2	+4
Sum	63	63	Ø
Mean	5.25000	5.250000	Experts 5.49

t for Attitude = Ø <.05 (2.201)

Item seven describes a mildly emotionally disturbed youngster. Pre-to posttest results as indicated on Table 15, show no change in the educational placement of this child. Since there was no change in placement, there was no change in either attitude or knowledge.

TABLE 16

RGEPS ~ Pre~to Posttest Results for Item # 8

8. Ray, age twelve, is a two time repeater with above average potential; he has great difficulty remembering material presented in a visual manner and, in spite of a great deal of remedial instruction, remains a non~reader.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / ~Gain
305	3	6	~3
45	3	3	Ø
57	4	3	+1
42	2	3	~1
27	3	3	Ø
50	2	3	~1
65	3	4	~1
56	3	4	~1
40	3	3	Ø
20	5	4	+1
505	3	3	Ø
35	4	3	+1
Sum	38	42	~4
Mean	3.16666	3.500000	Experts 3.54

t for Attitude = 1.0871167 <.05 (2.201)

In item eight, a student with moderate learning disabilities is discussed. The pre~to posttest results for this item as shown on Table 16, indicate no significant movement in the area of attitude. However, the principals' mean scores on the posttest are similar to the mean scores of the experts in knowledge.

TABLE 17

RGEPS ~ Pre~to Posttest Results for Item # 9

9. Kenny is a ten year old with a history of late development. He sat up at age two, he had no recognizable speech until age seven, he learned to walk at age nine, and he is still not toilet trained.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / ~Gain
305	1	1	Ø
45	1	1	Ø
57	5	1	+4
42	1	2	~1
27	1	1	Ø
50	1	1	Ø
65	2	1	+1
56	2	2	Ø
40	2	1	+1
20	6	1	+5
505	1	1	Ø
35	2	1	+1
Sum	25	14	+11
Mean	2.083333	1.166666	Experts 1.71

t for Attitude = 1.7823055 <.05 (2.201)

Item nine describes a student having severe mental retardation. On Table 17, the mean placement by the participants moved closer to that of the experts, but not enough to be statistically significant.

TABLE 18

RGEPS - Pre-to Posttest Results for Item # 10

10. Frank's achievement is below that of his fifth grade classmates. He is moody, and a loner who is continually seeking attention and testing adults to see if they like him. At home he has displayed physical violence, but never at school.

(N=12)

7 - Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	5	5	Ø
45	6	6	Ø
57	5	5	Ø
42	5	3	+2
27	6	6	Ø
50	6	6	Ø
65	6	6	Ø
56	4	4	Ø
40	4	3	+1
20	6	5	+1
505	3	2	+1
35	1	7	-6
Sum	57	58	-1
Mean	4.750000	4.833333	Experts 4.54

t for Attitude = .1461474 <.05 (2.201)

In item ten an emotionally disturbed student with a mild degree of disability is described. Pre-to posttest results on Table 18 indicate no significant change in attitude and movement further from the experts in knowledge.

TABLE 19

RGEPS - Pre-to Posttest Results for Item # 11

11. Leroy beat another first grader so severely that minor surgery was required. He has bitten a number of his classmates and has to be supervised constantly.

(N=12)

7 - Regular Classroom <----------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	1	2	-1
45	2	2	Ø
57	2	2	Ø
42	5	5	Ø
27	2	2	Ø
50	1	2	-1
65	2	2	Ø
56	2	2	Ø
40	1	1	Ø
20	2	1	+1
505	6	2	+4
35	2	2	Ø
Sum	28	25	+3
Mean	2.333333	2.083333	Experts 2.66

t for Attitude = Ø.6723503 <.Ø5 (2.2Ø1)

Item eleven describes a student who is mildly emotionally disturbed. Table 19, shows no significant difference between the pre and posttest results. However, participants did move closer to the experts' mean score in the area of knowledge.

TABLE 20

RGEPS - Pre-to Posttest Results for Item # 12

12. Charles is an eight year old who has not yet sat up, crawled, or walked. He is unable to communicate in any way. He has no bowel or bladder control, can't feed himself, and is very susceptible to upper respiratory infections.

(N=12)

7 - Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	1	1	0
45	1	1	0
57	2	1	+1
42	1	1	0
27	1	1	0
50	1	1	0
65	1	1	0
56	1	1	0
40	1	1	0
20	1	1	0
505	1	1	0
35	1	1	0
Sum	13	12	+1
Mean	1.083333	1.000000	Experts 1.09

t for Attitude = 1.000000 <.05 (2.201)

A student who is severely mentally retarded is described in this table. Pre-to posttest results, as shown on Table 20, indicate that eleven out of twelve participants showed no change.

TABLE 21

RGEPS ~ Pre-to Posttest Results for Item # 13

13. Jose seems unable to perform the academic requirements of his fifth grade class, particulary in mathematics and language. He has a cheerful compliant personality. He works best on a concrete level.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / ~Gain
305	4	4	Ø
45	5	5	Ø
57	3	5	+2
42	4	3	+1
27	6	4	+2
50	4	4	Ø
65	3	3	Ø
56	4	4	Ø
40	3	3	Ø
20	4	4	Ø
505	4	3	+1
35	4	3	+1
Sum	48	45	+7
Mean	4.000000	3.750000	Experts 4.17

t for Attitude = .89715 <.05 (2.201)

Item thirteen describes a student who is moderately retarded. Pre-to posttest results shown on Table 21, indicate no significant change in attitude and knowledge, participants moved further from the experts' mean placement score.

TABLE 22

RGEPS ~ Pre-to Posttest Results for Item # 14

14. Virginia is an eight year old who does little work in school. She is capable of verbal and physical attacks on anyone when she is angry. She doesn't seem to care about any school relationships and neither threats nor praise are effective in dealing with her.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / ~Gain
305	2	6	~4
45	6	3	+3
57	2	3	~1
42	3	3	Ø
27	5	3	+2
50	5	2	+3
65	2	2	Ø
56	3	2	+1
40	3	2	+1
20	2	3	~1
505	5	2	+3
35	3	4	~1
Sum	41	35	+6
Mean	3.416666	2.916666	Experts 3.23

t for Attitude = .8206518 <.05 (2.201)

A student who is moderately emotionally disturbed is discussed in item fourteen. Pre-to posttest results on Table 22, indicate no significant change in attitude. In the area of knowledge, participants moved further from the mean score of the experts

TABLE 23

RGEPS - Pre-to Posttest Results for Item # 15

15. Tom, age eight, doesn't seem to acquire new skills as quickly as most; he needs to have instructions repeated several times. He has difficulty working individually and needs a great deal of encouragement and supervision.

(N=12)

7 - Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	4	5	-1
45	5	4	+1
57	3	4	-1
42	5	5	Ø
27	6	4	+2
50	4	3	+1
65	4	6	-2
56	5	6	-1
40	5	2	+3
20	5	4	+1
505	6	3	+3
35	4	6	-2
Sum	56	50	+4
Mean	4.666666	4.166666	Experts 5.03

t for Attitude = .9756655 <.05 (2.201)

Item fifteen describes a student who is mildly mentally retarded. Pre-to posttest results shown on Table 23, indicate no significant change in attitude. In the area of knowledge, participants moved further from the experts' mean placement score.

TABLE 24

RGEPS - Pre-to Posttest Results for Itemtion # 16

16. Annalou is new to her present fifth grade class. She seems anxious while she is in school, but is much calmer as soon as she leaves the school grounds. Her schoolwork is slightly below average, but she is quite responsive when encouraged.

(N=12)

7 - Regular Classroom <----------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	6	5	+1
45	6	7	-1
57	5	7	-2
42	7	7	Ø
27	7	7	Ø
50	7	7	Ø
65	7	6	+1
56	7	7	Ø
40	7	7	Ø
20	7	6	+1
505	7	7	Ø
35	7	7	Ø
Sum	80	80	Ø
Mean	6.666666	6.666666	Experts 6.43

t for Attitude = Ø <.05 (2.201)

A mildly emotionally disturbed student is described in item sixteen. Pre-to postest results for item sixteen as shown on Table 24, show no change in either attitude or knowledge.

TABLE 25

RGEPS ~ Pre~to Posttest Results for Item # 17

17. Jesse, an eight year old, has difficulty keeping up with his class in all subjects. He is very large for his age and quite immature socially. He has a noticeable speech problem.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / ~Gain
305	3	3	Ø
45	5	4	+1
57	4	4	Ø
42	3	5	~2
27	4	5	~1
50	5	2	+3
65	5	6	~1
56	5	4	+1
40	6	6	Ø
20	5	5	Ø
505	6	5	+1
35	4	5	~1
Sum	55	54	+1
Mean	4.583333	4.500000	Experts 3.83

t for Attitude = .2201313 <.05 (2.201)

Item seventeen describes a moderately mentally retarded pupil. Pre~to posttest results shown on Table 25, indicate no significant change in attitude. In the area of knowledge, the principals moved closer to the experts' mean score.

TABLE 26

RGEPS - Pre-to Posttest Results for Item # 18

18. Stan is a twelve year old of average ability who wants desperately to learn to read, but even though he has had remedial instruction, he is virtually a non-reader. He disturbs other children by humming to himself much of the time. Although he is frustrated in most academic endeavors, he does very well in experiments and class discussions in science and on all oral tests.

(N=12)

7 - Regular Classroom <----------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	3	5	-2
45	4	3	+1
57	6	3	+3
42	3	3	Ø
27	5	3	+2
50	5	3	+2
65	3	4	-1
56	3	3	Ø
40	4	5	-1
20	3	4	-1
505	5	3	+2
35	5	3	+2
Sum	49	42	+7
Mean	4.083333	3.500000	Experts 3.94

t for Attitude = 1.2463195 <.05 (2.201)

A pupil with moderate learning disabilities is described in iten eighteen. Pre-to posttest results shown on Table 26, indicate no significant change in attitude. In addition, participants moved further from the mean placement score of experts in knowledge.

TABLE 27

RGEPS - Pre-to Posttest Results for Item # 19

19. Jerry is a seven year old who disrupts group tasks and refuses to go with his class to lunch or gym. At recess he plays with older children from other classes since his own classmates won't play with him. Although he seems to like his teacher and has above average potential, he seldom completes his work in a satisfactory manner.

(N=12)

7 - Regular Classroom <----------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	5	6	-1
45	5	5	Ø
57	4	5	-1
42	4	3	+1
27	4	5	-1
50	5	6	-1
65	5	4	+1
56	3	3	Ø
40	5	5	Ø
20	6	6	Ø
505	6	5	+1
35	6	5	+1
Sum	58	58	Ø
Mean	4.833333	4.833333	Experts 5.37

t for Attitude = Ø <.05 (2.201)

Item nineteen describes a student who is mildly emotionally disturbed. Table 27, shows no change between pre and posttest scores in the student's educational placement. Therefore, there was no resulting change in the areas of attitude and knowledge

TABLE 28

RGEPS ~ Pre-to Posttest Results for Item # 20

20. Dan is a six year old who is extremely immature in all areas. He is not able to do any of the tasks that are expected of a kindergartner. His speech is primarily limited to one or two utterances. He has a negative approach to school.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / ~Gain
305	4	2	+2
45	3	2	+1
57	2	3	~1
42	6	2	+4
27	5	2	+3
50	1	3	~2
65	2	2	0
56	6	5	+1
40	4	3	+1
20	2	3	~1
505	2	2	0
35	2	2	0
Sum	39	31	+8
Mean	3.250000	2.583333	Experts 2.69

t for Attitude = 1.3401196 <.05 (2.201)

A severe mentally retarded student is described in item twenty. On Table 28, pre-to posttest results indicate no significant change in attitude. In the area of knowledge, participants moved closer to the experts' mean score.

TABLE 29

RGEPS - Pre-to Posttest Results for Item # 21

21. Paula is a soft spoken nine year old. She has trouble understanding even simple directions and often chooses to ignore them. She usually cannot do assigned work and reacts by crying or distracting other children.

(N=12)

7 - Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	5	2	+3
45	3	3	Ø
57	2	3	-1
42	2	4	-2
27	6	2	+4
50	4	2	+2
65	3	2	+1
56	4	3	+1
40	3	3	Ø
20	4	6	-2
505	4	3	+1
35	4	5	-1
Sum	44	38	+6
Mean	3.666666	3.250000	Experts 3.43

t for Attitude = .7665539 <.05 (2.201)

Item twenty-one describes a pupil who is moderately mentally retarded. Pre-to posttest results shown on Table 29, indicate no significant change in attitude. However, in the area of knowledge, principals moved closer to the experts' mean score.

TABLE 30

RGEPS ~ Pre~to Posttest Results for Item # 22

22. Noel is a second grader who was retained in first grade. His performance is low in all subjects, but he appears fairly capable. He is lethargic, passive, and non~reactive, seeming to lack emotional responsiveness. He still checks each letter when copying a word and often confuses letters and whole words.

(N=12)

7 ~ Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / ~Gain
305	3	2	+1
45	5	4	+1
57	5	5	Ø
42	5	6	~1
27	4	4	Ø
50	5	4	+1
65	4	4	Ø
56	5	4	+1
40	4	6	~2
20	5	5	Ø
505	5	4	+1
35	5	3	+2
Sum	55	51	+4
Mean	4.583333	4.250000	Experts 4.26

t for Attitude = 1.076054 <.05 (2.201)

A moderate learning disabled child is described in item twenty~two. Table 30, indicates no significant change in attitude by the principals. However, for knowledge, the participants moved closer to the experts' mean score.

TABLE 31

RGEPS - Pre-to Posttest Results for Item # 23

23. Bob is a third grader who wants friends, but his classmates continually make him a scapegoat. Although he is apparently bright, he is very forgetful and seems unaware of what is expected by his teacher.

(N=12)

7 - Regular Classroom <----------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	6	7	-1
45	6	7	-1
57	6	7	-1
42	5	7	-2
27	6	7	-1
50	6	6	0
65	6	6	0
56	7	7	0
40	6	6	0
20	5	6	-1
505	7	6	-1
35	6	6	0
Sum	72	78	-6
Mean	6.000000	6.500000	Experts 5.69

t for Attitude = 2.1712405 <.05 (2.201)

Item twenty-three describes a pupil who is mildly emotionally disturbed. Pre-to posttest results shown on Table 31, indicate no significant change in attitude. Although t did not reach the .05 value of 2.201, a t value of 2.171 is noteworthy. Participants in the area of knowledge moved further from the experts' mean score.

TABLE 32

RGEPS - Pre-to Posttest Results for Item # 24

24. Vance, age seven, is a good student in all areas except mathematics which is a constant frustration to him; he is unable to deal successfully with the most basic arithmetic concepts.

(N=12)

7 - Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	4	6	-2
45	6	5	+1
57	5	6	-1
42	4	5	-1
27	4	4	Ø
50	4	5	-1
65	5	4	+1
56	6	5	+1
40	4	6	-2
20	4	4	Ø
505	5	5	Ø
35	5	7	-2
Sum	56	62	-6
Mean	4.666666	5.166666	Experts 4.54

t for Attitude = 1.4832398 <.05 (2.201)

Item twenty-four describes a student who is moderately learning disabled. Pre-to posttest results shown on Table 32, indicate no significant change in attitude. Also in the area of knowledge, the educational placement of the principals moved further from the mean score of the experts.

TABLE 33

RGEPS - Pre-to Posttest Results for Item # 25

25. Bill is a very friendle ten year old who has recently learned to write his name. His speech shills are on a very immature level. He has mastered a few simple self-help skills.

(N=12)

7 - Regular Classroom <---------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	5	4	+1
45	2	2	Ø
57	2	2	Ø
42	2	2	Ø
27	2	2	Ø
50	2	5	-3
65	2	2	Ø
56	2	2	Ø
40	2	2	Ø
20	2	3	-1
505	2	4	-2
35	2	4	-2
Sum	27	34	-7
Mean	2.250000	2.833333	Experts 2.14

t for Attitude = 1.7352724 <.05 (2.201)

A severely mentally retarded pupil is described in item twenty-five. Table 33, indicates that no significant change in attitude occurred. In knowledge, the gap between the mean score of the participants and the mean score of the experts widened.

TABLE 34

RGEPS - Pre-to Posttest Results for Item # 26

26. Mel continually disrupts his fifth grade class. He seems to be angry much of the time and often bullies other children. Although he is of average potential, he doesn't have much interest in his studies.

(N=12)

7 - Regular Classroom <~~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	3	3	Ø
45	3	6	-3
57	5	5	Ø
42	3	3	Ø
27	5	5	Ø
50	5	6	-1
65	5	6	-1
56	5	5	Ø
40	3	2	+1
20	3	5	-2
505	6	4	+2
35	6	6	Ø
Sum	52	56	-4
Mean	4.333333	4.666666	Experts 4.51

t for Attitude = .8864044 <.05 (2.201)

In item twenty-six a moderately emotionally disturbed student is described. Pre-to posttest results shown on Table 34, indicate no significant change in attitude. However, participants did move closer in knowledge to the experts' mean score.

TABLE 35

RGEPS - Pre-to Posttest Results for Item # 27

27. Christopher is a very articulate second grader with many interests. He works very slowly, particularly in reading. He is weak in phonetic analysis, can't seem to retain reading skills, and any academic growth on his part depends on a great deal of drill.

(N=12)

7 - Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	5	3	+2
45	5	6	-1
57	4	5	-1
42	4	5	-1
27	4	5	-1
50	4	4	Ø
65	4	5	-1
56	6	4	+2
40	7	7	Ø
20	4	7	-3
505	6	5	+1
35	5	7	-2
Sum	58	63	-5
Mean	4.833333	5.250000	Experts 4.63

t for Attitude = .9590276 <.05 (2.201)

A moderately learning disabled pupil is described in item twenty-seven. Table 35, pre-to posttest results indicate no significant change in attitude. In addition, the mean scores of the participants and the mean scores of the experts moved further apart.

TABLE 36

RGEPS - Pre-to Posttest Results for Item # 28

28. Don, age ten, is only slightly slower than his average classmates, but he is clumsy and other students have nicknamed him "Don the dunce".

(N=12)

7 - Regular Classroom <----------> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	6	5	+1
45	7	7	Ø
57	4	7	-3
42	6	3	+3
27	4	7	-3
50	6	7	-1
65	6	7	-1
56	6	6	Ø
40	6	6	Ø
20	7	6	+1
505	7	6	+1
35	7	7	Ø
Sum	71	73	-2
Mean	5.916666	6.083333	Experts 5.49

t for Attitude = .3402792 <.05 (2.201)

Item twenty-eight describes a mildly learning disabled student. Pre-to posttest results shown on Table 36, indicate no significant change in attitude. Also, participants in the area of knowledge, have moved further from the mean score of experts.

TABLE 37

RGEPS - Pre-to Posttest Results for Item # 29

29. Jimmy Lee is an eight year old whose academic performance is well below what is expected for his age. He has difficulty feeding himself, he is not completely toilet trained, and he has very poor motor coordination.

(N=12)

7 - Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	2	3	-1
45	2	2	Ø
57	3	2	+1
42	2	2	Ø
27	1	1	Ø
50	2	1	+1
65	2	1	+1
56	2	1	+1
40	2	1	+1
20	1	1	Ø
505	2	1	+1
35	2	2	Ø
Sum	23	18	+5
Mean	1.916666	1.500000	Experts 1.91

t for Attitude = -2.1588923 <.05 (2.201)

A severely mentally retarded pupil is described.

Table 37 indicates that no significant change in attitude took place. It should be noted that although the required t value of 2.201 was not reached, a t value of -2.16 was obtained. In the area of knowledge, participants initially agreed with the experts. But posttest placement results showed movement away from the experts' mean score.

TABLE 38

RGEPS - Pre-to Posttest Results for Item # 30

30. Fred is a ten year old fourth grader who was retained in the first grade. His attention span is short and many of his interests are immature. His motivation for classroom work is very low, but improves markedly in a one-to-one relationship. He has difficulty with reading, spelling, and arithmetic concepts. His oral performance indicates that he is far more able than his written work would indicate.

(N=12)

7 - Regular Classroom <~~~~~~~~~~> Residential Placement 1

ID	Pretest	Posttest	Knowledge/Attitude +Gain / -Gain
305	3	3	Ø
45	3	4	-1
57	4	4	Ø
42	4	3	+1
27	4	5	-1
50	4	3	+1
65	3	3	Ø
56	3	4	-1
40	3	2	+1
20	3	4	-1
505	3	5	-2
35	4	3	+1
Sum	41	43	-2
Mean	3.416666	3.583333	Experts 4.03

t for Attitude = .560613 <.05 (2.201)

Item thirty describes a moderately learning disabled child. Pre-to posttest results as shown on Table 38, indicate no significant change in attitude. In the area of knowledge, participants moved closer to the experts' mean score.

Summary Results for Items 1-30

This researcher in an effort to summarize the pre-to postest results of the RGEPS has coded names for the area of disability as well as for the degree of disability. As described in Table 39, in the "Explanation of RGEPS Summary Codes", these nine categories are then divided into pre and posttest columns. When reviewing Tables 40-43, the reader should keep in mind that knowledge and attitude scores are computed differently.

Table 41, used by the RGEPS, is based upon the work of Guilford. The RGEPS defines a respondents knowledge of appropriate placement of handicapped children by the similarity of his placement decisions to those of experts. Since the experts' profile of placement decisions is the criterion to which the respondents' scores are compared the inter-rater reliability of the experts'placement must be substantial. A high reliability coefficient (.70 or higher), would mean that the test was accurately measuring some characteristic of the people taking it. Further, it would mean that the individual items on the test were producing similar patterns of responding in different people. Therefore, a high value would mean that the test items were homogeneous and, therefore, one can be confident in employing the experts'

TABLE 39

EXPLANATION OF RGEPS SUMMARY CODES

Variable Names	Attitude			Knowledge		
		Pre	Post		Pre	Post
Mild	MILDA	MIA1	MIA2	MILDK	MIK1	MIK2
Moderate	MODDA	MODA1	MODA2	MODK	MODK1	MODK2
Severe	SEVA	SEVA1	SEVA2	SEVK	SEVK1	SEVK2
Mentally Retarded	MRATT	MRAT1	MRAT2	MRKNW	MRKW1	MRKW2
Emotionally Disturbed	EDATT	EDAT1	EDAT2	EDKNW	EDKW1	EDKW2
Learning Disabled	LDATT	LDAT1	LDAT2	LDKNW	LDKW1	LDKW2
Total	TATT	TATT1	TATT2	TNOW	TKNW1	TKNW2

Note:

Caution must be used when interpreting the results to follow. Attitude and Knowledge gains are calculated differently. Attitude gains are calculated by subtracting pretest results from posttest results.

Knowledge scores are difference scores and the lower the score the higher or better the knowledge. Therefore, post results are subtracted from pre results.

TABLE 40

Experts' Means and Standard Deviation for RGEPS Score Area

Score Area	Number of Items	Attitude Mean	Standard Deviation	Knowledge Mean	Standard Deviation
Mild	8	44.20	3.79	2.56	.63
Moderate	16	65.14	6.57	3.61	.86
Severe	6	12.20	2.27	1.68	.73
Mental Retardation	10	29.60	3.75	2.72	.70
Emotional Disturbance	10	47.46	5.16	2.87	.85
Learning Disabilities	10	44.49	4.01	2.57	.79
Total	30	121.54	9.52	4.82	.93

TABLE 41

Inter-Rater Reliabilities

for Experts' Choice

Score Area	Number of Items per Area	Inter-Rater Reliability
Mild	8	.87
Moderate	16	.89
Severe	6	.96
Mental Retardation	10	.99
Emotional Disturbance	10	.98
Learning Disabilities	10	.95
Total	30	.99

*Taken from the Rucker Gable Educational Programming Scale Manual

placement decisions as a reliable criterion in any of the RGEPS knowledge areas. That is, one may confidently compare the participants' responses to those of the experts to identify strengths and weaknesses in the participants' knowledge of appropriate educational programming for the handicapped children under consideration.

Table 42, contains pre and posttest means and related t values for attitude. Inspection of the data indicate that significant attitude losses were made in the direction of moving handicapped children further from the regular classroom on the Severe, Mental Retardation attitude score areas.

Table 43, indicates that a significant knowledge loss was made in the score area Mild. This means that principals' knowledge mean scores on the posttest, concerning a pupils degree of disability, were further from the experts' mean placement score than their pretest mean score. Table 44, and Table 45, compare the variables of years of teaching experience, years as a principal, age and the number of special education courses taken. Using Pearson Product-Moment Correlation Coefficients and the resulting r values there was no significant interaction between the variables in the posttest results (Table 44) or when we compare pre-to posttest differences. However,

TABLE 42

RGEPS Pre- to Posttest Results for Attitude

Principals' Workshop

(N = 12)

Score Area	Attitude Pretest Mean	Posttest Mean	t
MILDA	42.66	42.58	-0.05
MODA	66.75	65.91	-0.40
SEVA	12.92	11.17	-2.30*
MRATT	31.25	28.42	-2.59*
EDATT	46.67	46.17	-0.27
LDATT	44.42	45.08	0.72
TATT	122.33	119.67	-1.03

* / t .05 / $\geq$ 2.20, df =11

although not significant, Table 45, does suggest a strong negative interaction between Learning Disabled Attitude Gain and years of teaching experience, years as a principal and age. Also, a positve relationship between the principals' attitude of Moderate disabilities and knowledge of Severe disabilities and the number of special education courses taken.

As a supplemental follow-up activity, this researcher developed and administered a Workshop Evaluation Instrument. This instrument consisted of thirteen closed and open ended questions. Principals felt that the workshop presenters were effective and the material presented was appropriate. There was ample time to express one's ideas and new relevant information was provided. Principals felt that the information presented in this workshop will be helpful to them in the educational programming for handicapped students.

In the opinion of participating principals, there is a lack of support services available to principals. In addition, the role of participating TEAM members i.e. guidance counselor, school psychologist, itinerant teachers, needs clarification. While participants agreed that the workshop achieved its stated objectives, the principals, at the end of the workshop, did not feel their

TABLE 43

RGEPS Pre- to Posttest Results for Knowledge

Principals' Workshop

(N = 12)

Score Area	Knowledge Pretest Mean	Posttest Mean	t
MILDK	2.86	3.69	-2.39*
MODK	4.39	4.51	-0.33
SEVK	2.77	2.07	2.01
MRKNW	3.31	3.10	0.45
EDKNW	3.78	4.07	-0.92
LDKNW	3.17	3.45	-0.91
TKNOW	6.06	6.23	-0.35

* / t .05 / $\geq$ 2.20, df =11

TABLE 44

Pearson's Product Moment Correlation

Post Test Results

Score Area	Years of Teaching Experience	Years as a Principal	Age	Number of Special Education Courses
MIA2	.142	-.033	.031	-.319
MODA2	.283	.141	.223	.017
SEVA2	.043	-.067	.027	.114
MRAT2	.453	.251	.325	.200
EDAT2	.027	-.183	-.152	-.362
LDAT2	.167	.169	.302	.057
TATT2	.305	.056	.184	-.170
MIK2	.171	.259	.223	.028
MODK2	-.119	.031	.014	.307
SEVK2	-.086	-.122	-.142	.207
MRKW2	.007	.040	.014	.039
EDKW2	.053	.127	.097	.162
LDKW2	-.104	.087	.078	.337
TKNW2	-.010	.104	.081	.211

df = 10

.05 level of significance > .576

TABLE 45

Pearson's Product Moment Correlation

Difference from Pre and Post Tests

Score Area	Years of Teaching Experience	Years as a Principal	Age	Number of Special Education Courses
MIAG	.191	.029	.168	-.335
MODAG	-.231	-.319	-.193	.456
SEVAG	-.152	-.256	-.293	-.319
MRATG	.147	-.050	.110	-.016
EDATG	.024	-.135	-.009	.000
LDATG	-.501	-.539	-.463	.146
TATTG	-.101	-.313	-.127	.046
MIKG	.131	.030	.097	-.215
MODKG	.134	.100	.053	-.300
SEVKG	.009	.048	.152	.476
MRKWG	-.009	.015	.054	.277
EDKWG	.147	.145	.064	-.111
LDKWG	.108	-.071	.045	-.388
TKNWG	.112	.058	.089	-.041

Evaluation of Workshop

Improving Leadership Skills-Developing Positive Attitudes

The following data presents a summary of responses for the workshop evaluation instrument completed by eleven of the twelve workshop participants.

	Responses		
	1	2	3
	No Improvement Needed	Some Improvement Needed	Considerable Improvement Needed
1. Effectiveness of Instructors			Average Score
a. Knowledge of topic			1.09
b. Clarity of presentations			1.18
c. Answering questions			1.36
d. Balance of theoretical and practical issues			1.63
e. "Pacing" of the material presented			1.54
f. Workshop organization			1.27
g. Use of visual aids			1.45
h. Use of handouts			1.09
i. Length of workshop			1.36

Evaluation of Workshop (continued)

	Responses		
	1	2	3
	Too detailed	Too little	Appropriate
2. Overall, how would you rate the information presented?			Average Score: 3
3. Was there sufficient opportunity for interaction, expression of ideas and opinions?			2.9
4. Do you feel that this workshop provided new information relevent to your position?			2.63

	Responses		
	1	2	3
	Most of the time	Some of the time	Not at all
5. Were answers to the questions clear and understandable?			1

	Responses		
	1	2	3
	Very helpful	Helpful	Somewhat helpful
6. How helpful do you feel the information presented in this workshop will be to you in programming for handicapped students?			2.Ø9

Evaluation of Workshop (continued)

7. What do you consider to be major strengths of the workshop?

   a. The presenters did not monopolize the oral discussion segments.

   b. Information was presented in a clear, concise and non-threatening manner.

   c. The textbook handouts etc., have been most beneficial in the comprehension of concepts and clarification of information for meeting cognitive and affective needs of handicapped students.

   d. The subject was very interesting and important.

   e. Experienced instructors; good rapport

   f. Interaction between the principals and the discussion of common problems within the workshop subject matter.

   g. Practical answers were formulated to help solve some of our problems

   h. New relevant information was presented concerning laws governing the programming for special education students

   i. Opened up channels of communication with Superintendent's staff as well as staff members at the local college.

8. What suggestions do you have for improving future workshops?

   a. To involve more individuals involved in the educational programming of handicapped students.

   b. Ten consecutive Mondays were difficult.

   c. Workshop should not go over two hour time limit.

Evaluation of Workshop (continued)

d. More practical applications

e. More discussion on day-to-day problems

f. A more clear definition of agenda for the next meeting to insure that the participants can properly prepare.

g. The format for this particular workshop, which involved blending, lecture, group discussion and visual presentations should be continued in the future.

h. Separate elementary from middle and high school. Most material was for the upper grades.

i. Greater opportunity to visit and observe real situations or programs.

j. More guest speakers

k. More audio-visual materials

9. List 3-5 significant educational problems in the mainstreaming of handicapped students. Please list them in rank order.

a. Teacher acceptance - emphasis on behavioral disorder students

b. Special education students having problems with grade level work

c. Scheduling difficulties - becomes less flexible with small student-teacher ratio

d. Class size

e. The handicap of the student.

f. Classroom teacher's ability to modify expectations and still give the student a feeling of belonging and success.

g. Resource room teacher making a sincere effort to communicate and to assist the classroom teacher help the student.

Evaluation of Workshop (continued)

h. The acceptance of the handicapped student by regular students.

i. Most teachers lack proper training for successfully mainstreaming handicapped students.

j. Lack of supportive personnel (teacher aides) to assist regular classroom teachers meet the challenge of mainstreaming special needs students.

k. Reluctant parents that have come to feel comfortable with special needs services.

l. Assigning special needs classes to empty rooms with only two days notice.

m. The location of special needs classrooms within the building.

n. The tendency to lower the level of expectations for instructional objectives.

o. State regulations - often not clear

p. Set up and follow of the TEAM meeting

q. Insufficient conference time between resource and receiving teacher.

r. Communication between principal, guidance counselor, teacher(s) involved and parents in coordinating proper goals and instruction of mainstreamed students.

s. Monitoring the success (degree of) of mainstreamed students.

10. How would you resolve those problems with your staff (i.e. workshops, etc.)?

a. Staff improvement workshops-stressing comprehension of age, group and needs

b. Grouping - within grade level and class if feasible

Evaluation of Workshop (continued)

c. Classroom guidance where appropriate

d. Building administrator must be committed to mainstreaming. S/he must communicate this committment to his or her staff and provide the necessary support to insure its success.

e. Staff awareness can be improved with workshops or guest speakers scheduled for release time.

f. The hiring of additional aides for teachers faced with the mainstreaming of special needs students, would create a manageable situation from the teacher's perspective.

g. Counselors and special needs teachers should talk to parents about the benefits of mainstreaming their children.

h. Better planning by the special education department - more cooperation

i. In-service workshops with special needs teachers at each school.

j. Provide a complete breakdown of students who are to be CORED and monitor their progress in small groups.

k. Provide sufficient time for discourse prior to mainstreaming.

l. Provide either aide support and/or regular liason support for teachers with mainstreamed youngsters (i.e. use special needs aide to visit and confer on a regular basis as to needs and materials).

m. Literature updates on mainstreaming for all involved.

11. What items do you feel we should have covered but didn't?

a. The everyday issues

Evaluation of Workshop (continued)

b. The opportunity to see other school systems approach to special needs student programming. This would allow us to properly evaluate our own actions.

c. The role of the guidance counselor.

d. The role of the school psychologist.

e. The role of itinerant teachers.

f. Practical ways to deal with the constraints imposed by the special needs law regarding the suspension of special needs students.

g. More elementary age problems

12. Do you think differently now about mainstreaming than before?

a. Not really. I have sincerely believed that all students should be treated equitable. Students should be moved out of a program as quickly as possible when they are ready to work with peers and programs.

b. Yes, we have placed the special needs students in homerooms with the gifted/talented and regular students.

c. No, but the problem of receptiveness to mainstreaming needs to be addressed. I would suggest a joint workshop for both special needs personnel and receiving teachers.

d. Not really, although I feel better about the end result

13. Do you feel this in-service workshop provided opportunities for experiencing practical application of activities, procedures or materials?

a. Yes (6 respondents)

Evaluation of Workshop (continued)

b. Limited

c. This was a valuable activity - time consuming but for the most part interesting

d. The many ideas concerning mainstreaming of special needs students certainly is relevant and beneficial to today's school administrators.

e. Somewhat

f. More has to be done with guidance staff and special education staff in the review and current practice of mainstreaming.

14. Did this workshop accomplish its stated objectives?

a. Yes (6 respondents)

b. If it was to clarify procedure and present modern trends, then yes.

c. To some degree

d. Mostly

e. I feel that the main objective of enlightening school administrators to their responsibilities for servicing special needs students was definitely accomplished

attitudes had changed concerning the mainstreaming of handicapped students.

Summary of Analysis

An analysis of pre-to posttest data of the RGEPS, for the Principals' Workshop, indicates that an attitude loss in five out of seven score areas occurred, with a significant attitude loss occurring in the Severe, Mental Retardation Attitude score areas. In the area of knowledge, six out of seven areas showed a knowledge loss, with a significant knowledge loss taking place in the Mild score area. In the score area of Severe, while not statistically significant, the resulting score of 2.01, strongly suggests a knowledge gain.

In utilizing the Pearson Product-Moment Correlation, this researcher assumed that there was a relationship between attitude and knowledge and the variables of years of teaching experience, years as a principal, age and the number of special education courses taken. The resulting r values indicate that there was no significant interaction between the four variables and attitude and knowledge. However, the data strongly suggests a interaction between the principals' attitudes towards Learning Disabled students and the years of teaching, years as a principal and age. Also the data strongly

suggests a relationship between the number of special education courses taken and the principals' attitudes towards students with a Moderate degree of a disability. In addition, the data strongly suggests a connection between the principals' knowledge of Severe disabilities and the number of special education courses taken.

At the conclusion of the workshop, this researcher asked all participating principals to voluntarily complete the Workshop Evaluation Instrument. The results of this questionnaire indicated that the workshop was worthwhile but did not change their attitudes on the mainstreaming of handicapped children. In addition, the lack of support services, dealing with everyday problems, clarifying the roles of the counselor, psychologist and specialist were major concerns of participating principals.

C H A P T E R V

DISCUSSIONS AND CONCLUSIONS

The purpose of this study was to see if, through in-service education, Principals' attitudes towards the mainstreaming of handicapped students could be changed? It was hypothesized that significant pre-to post test differences in attitude and knowledge, as measured by the t test, would occur.

Utilizing the null hypothesis, which doubts the effect of the experimental variable (workshop) until the effect is demonstrated to be a significant difference (t value >2.20), the researcher analyzed all data to determine if the in-service program for principals set forth in this study, yielded significant results which could serve as a model for other administrators who are looking for ways to change attitudes through staff development programs. Other questions considered in this study were:

1. How can principals provide effective programming for handicapped children?

2. Can participation in this in-service activity enable the building principal to become a more effective educational leader?

3. Do the backround variables of the participants; such as age, years of teaching experience, years as a principal and the number of special education courses taken, influence principals' attitudes and knowledge?

To determine the relationship of backround variables, the researcher utilized Pearson's Product-Moment Correlation Coefficients. To be significant a r score greater than .576 must be obtained.

Interpretation of the Results

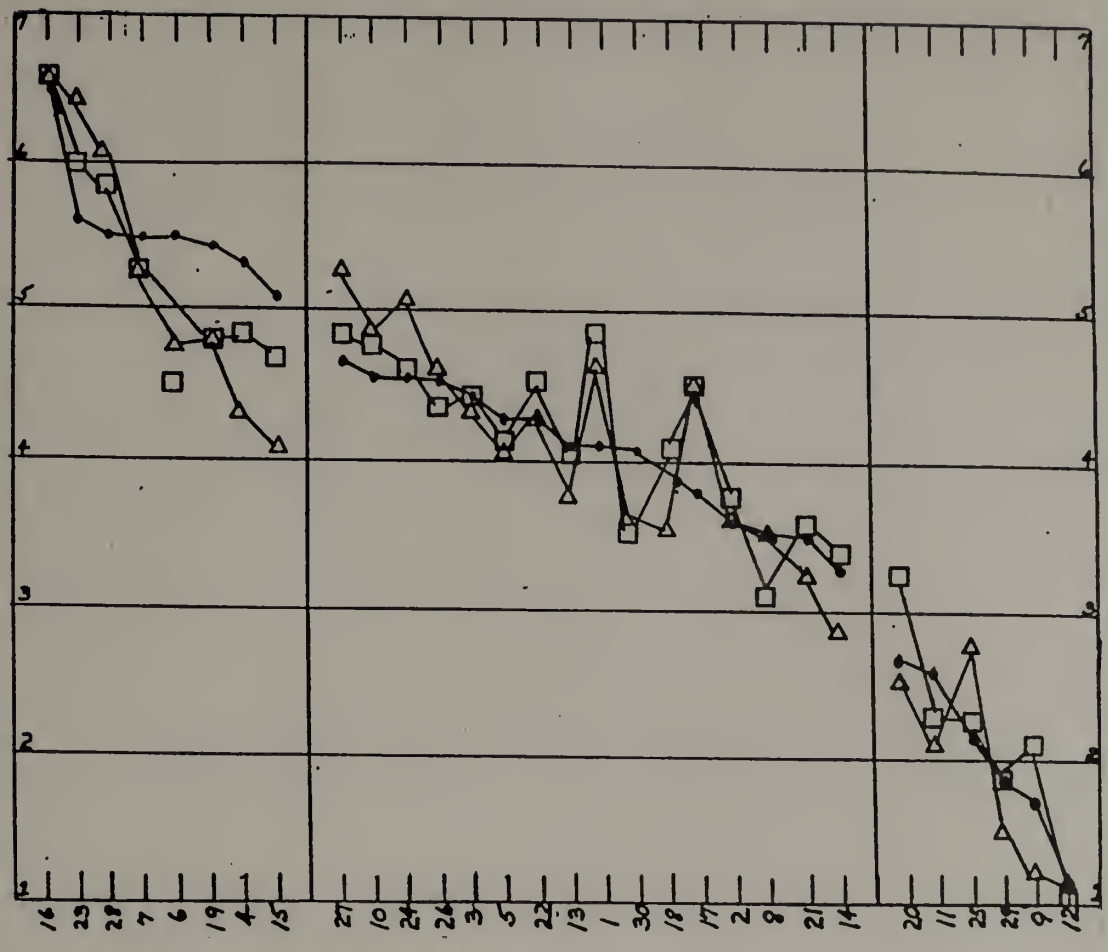
As shown in Workshop Profile 1, the pretest results indicate that the principals' mean scores were not significantly different from the experts in the Severe and Moderate area. There was a considerable difference in attitude and knowledge when we look at the results of the Mild disability scores.

The components of the workshop consisted of a review of handicap regulations, Taunton Public Schools' referral procedures, programming strategies for principals, teaching strategies for teachers, working with parents, mainstreaming concepts and simulation activities.

It is important to remember that attitude and knowledge scores for the RGEPS are computed differently. That is, increased attitude scores could move the group closer to the the experts' choices. This is significant if the principals' mean scores are below that of the experts. If the principals' mean scores were above the experts, than increased attitude scores would indicate a greater distance from the experts' choice. Again, if the principals' mean scores were below that of the experts,

Principals' Workshop

Profile 1



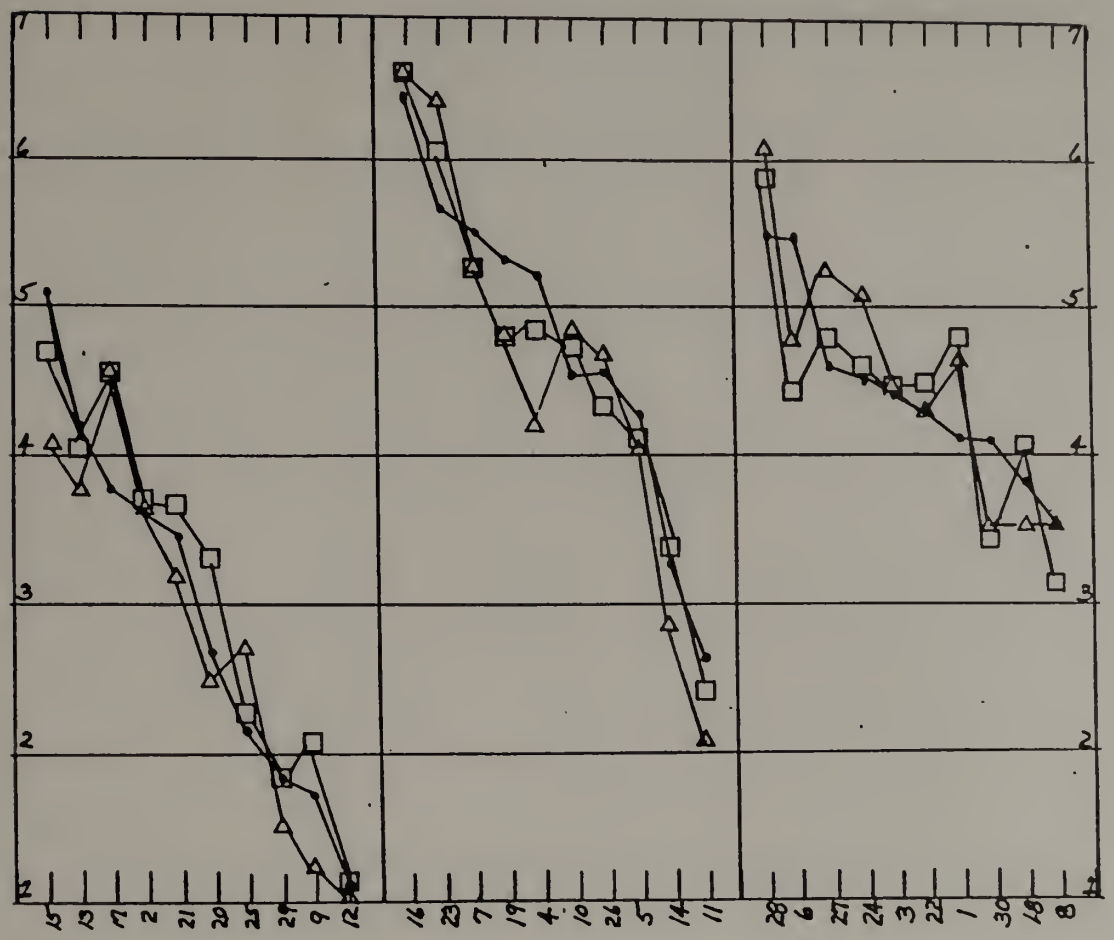
● Experts' Mean Score

□ Principals' Pretest Mean Score

△ Principals' Posttest Mean Score

Principals' Workshop

Profile 2



Mental Retardation | Emotional Disturbance | Learning Disabilities

● Experts' Mean Score

□ Principals' Pretest Mean Score

△ Principals' Posttest Mean Score

movement toward that mean would result in an increase in knowledge. If the principals' mean score was above the experts' mean, than an increase in attitude would also result in a decrease in knowledge. A total of thirty items were broken into forteen score areas (7 attitude and 7 knowledge).

The resulting data from this study shows the null hypothesis was supported in eleven out of forteen total area scores. In the three areas where the null hypothesis was rejected, there was a loss in attitude and knowledge. In addition, the variables of age, years of teaching experience, years as a principal and the number of special education courses taken did not produce any significant relationship with principals' attitude and principals' knowledge.

Attitude

As presented on Profile 1, in the area of attitude eleven items; item 25 (Severe), items 8, 1, 26, 24, 10, 27, (Moderate), and items 6, 7, 28, 23, (Mild), showed an educationally significant increase in attitude scores. The remaining items showed no increase or a decrease. Items 20, 29, 9 and 12, when summarized, show a significant decrease in attitude, with a t score of 2.30 for Severe and 2.59 for Mentally Retarded. Both scores are above the .05 level of significance.

Knowledge

In knowledge, the principals increased their knowledge scores for eleven out of thirty items. Item 20 (Severe), items 21, 8, 2, 17, 1, 22, 26 (Moderate), and items 19, 6, 7 (Mild), showed an educationally significant increase. Two items showed no change while the remaining items decreased in knowledge. In the area of Mild, the pre-to posttest data indicate there was a significant decrease in knowledge with results of 2.39. Although in the same area, items 23, 28, 7, 6 or four out of eight items showed significant gains in attitude.

It is difficult to determine why there were only significant losses in attitude and knowledge scores. One possible explanation comes from the fact that near the end of the workshop considerable discussion centered on a recent Massachusetts Department of Education decision, to become effective January 1, 1986, (Chapter 766, section 333), stating that special needs students could not be suspended more than ten days during the school year. Along with this decision, very stringent guidelines defining a cumbersome process of maintaining logs, modification of educational plans and the seeking of approval from the regional office in suspension cases that go beyond ten days, in this researcher's opinion, had a definite bearing on principals' attitudes and restricted

their willingness to move the handicapped child closer to the mainstream. This may be one reason why some attitude scores decreased, especially in the severe disability area.

Backround Information

This researcher in addition to measuring attitude and knowledge gains also compared the interrelationships of age, years of teaching experience, years as a principal and the number of special education courses taken to attitude and knowledge. Using Pearson's Product-Moment Correlation, the researcher compared the interaction of two variables. That is, this researcher compared age to attitude, years of teaching experience to attitude, years as a principal to attitude and the number of special education courses taken to attitude. The same procedure was followed in comparing backround information with knowledge.

The resulting data indicates that the backround variables did not produce any significant influence to attitude and knowledge scores. The data while not significant at the .05 level (df=.576), strongly suggests that there is an educational significance between principals' attitudes pertaining to Learning Disabilities and principals' years of teaching experience (df=~.539), age (~.463) and years as a principal (~.539).

Workshop Evaluation

Overall, principals rated the workshop as appropriate. The principals felt that there was sufficient opportunity for interaction, expression of ideas and also felt the workshop did provide new information relevant to their position. Principals suggested that the workshop could be improved by not having two hour meetings each week, to involve more individuals involved in the educational programming of handicapped students, additional guest speakers, greater opportunity to visit and observe real situations or programs and to separate the elementary grades from the middle and high school levels.

Principals enjoyed the workshop format and recommended its continuance in the future. Why didn't the workshop achieve its stated goals? The answer is not an easy one, nor can it be easily validated, but in the opinion of this researcher, the objectives of the workshop were too global. Greater gains could have been obtained if the workshop focused only upon the results of the pretest and let the pretest determine the workshop agenda. However, this would have eliminated principal participation in the workshop design, seriously curtailed the scope of the presentation and not allowed for leadership training activities such as role playing and

simulation. It was felt by this researcher that the acquisition of new or the fine tuning of existing leadership skills would also affect principals' attitudes and knowledge.

Educational Outcomes

Using the resulting data from the Workshop Evaluation (question #10), this researcher discussed these results with all principals. It was felt that the greatest need was to provide additional support services. In the referral process for the Taunton Public School System, there is provisions for an internal screening committee. The composition of which is the principal, counselor, regular classroom teacher and the special needs teacher. This concept is not new, but was never properly implemented in the Taunton Public School System. As a result of the Principals' Workshop, an in-house screening committee entitled "Teacher Assistance/Child Study Team" was developed.

Two elementary principals who participated in the study (ID# 045 and 027), volunteered to participate in a pilot program. The purpose of this pilot program was to develop a positive working relationship among all staff members within a school and to support each others efforts to provide the best educational program possible within that building. Two schools, through the months of April

and May, 1986, met one half day each week to discuss student problems. The composition of the Teacher Assistance/Child Study Team was the principal (chairman), the regular classroom teacher, the guidance counselor, the psychologist, and the special needs teacher.

Teachers were encouraged to meet with the TEAM to discuss student problems. Teachers were asked to schedule their time with the principal. Teachers could only discuss one student at each meeting. They were also asked to bring samples of the student's work. The school system provided support for teachers by hiring a substitue to cover participatint regular classroom teachers' classes.

The results of this pilot program were very positive. Everyone in both participating schools felt the Teacher Assistance/Child Study Team concept gave everyone an opportunity to get together and share input. They didn't have to "catch people on the fly". The pilot program improved home contacts, generated constructive suggestions and teachers felt that staff members were concerned. A significant outcome of this pilot is that all twelve K-8 schools beginning next fall, will have a Teacher Assistance/Child Study Team. This TEAM will meet every other week in October, then monthly for the remainder of the school year.

A second educationally significant outcome of this study, also as a result of the Workshop Evaluation is a Student Modeling Program. In their workshop comments, principals wanted to observe real programs in action. As a result of this, several principals visited the Room #11 Program in the East Bridgewater Public School System. This model program so impressed our staff that one of our elementary schools will pilot this program in September. Our pilot will begin in grade 4. This model is based upon the development of one classroom having twenty students, ten of which are average, independent learners with no behavioral problems. With these students are placed ten special needs students with prototypes ranging from 502.1 through 502.4. A full time aide will also be assigned to this class. Support services will come to the class, not the student going to the service. It is hopeful that we will improve student achievement and performance as well as keeping them in the mainstream of regular education. If successful, this program will be expanded to grades 1-4 in the 1987-88 school year.

Summary of Results

The focus of this study was to determine "The Effects of In-Service Training on Principals' Attitudes Towards the Mainstreaming Of Handicapped Students". The variable applied to change attitude was a principals' workshop. This in-service program was in the form of ten two hour sessions for a total of twenty hours. The in-service training program format was designed by participating principals and this researcher utilizing pretest results and the conclusions of other researchers, particularly Peters and Austin (See Chapter II), and what participants felt was needed.

The research method used was the null hypothesis. The researcher took the position that the null hypothesis would be refuted and that there would be a significant change in the attitude of participating principals. To measure atttitude and knowledge, this researches used the Rucker Gable Educational Programming Scale. Pre-to posttest results show that in five out of seven score areas, there was no significant attitude change. In the area of Severe, Mentally Retarded there was a decrease in attitude as demonstrated by statistical data at the .05 level for Severe (-2.30) and Mental Retardation (-2.59).

In knowledge scores, six out of seven score areas showed no significant difference. One area, that of Mild, showed a significant knowledge loss of -2.39. However there was an educationally significant knowledge gain in the Severe area as proven by the resulting 2.01 score.

The backround variables of age, years of teaching experience, years as a principal and the number of special education courses taken showed no significant relationship. In the area of Learning Disability there was a negative interaction between the variables of attitude to age (-.463), to years of teaching experience and years as a principal. This means that in the area of Learning Disability, those participating principals with the least years of teaching experience and the least years as principal had the greatest attitude loss.

The most promising data came from the Workshop Evaluation. This researcher followed-up on all principals' suggestions. Two suggestions bore fruit. A piloted Teacher Assistance/Child Study Team showed significant promise and will be expanded to all elementary and middle schools during the 1986-87 school year. The second area of promise came from a visitation to view a model special education program in the East Bridgewater Public School System. Our visitation generated such a positive reaction among Taunton Public School principals, that a pilot program will be implemented next fall.

Although this study did not yield significant statistical data rejecting the null hypothesis, in the opinion of this researcher, this study did generate two educationally significant outcomes which will be piloted next year. Other areas which in the opinion of this researcher are worthy of additional study are:

1. Data from the RGEPS can provide evidence of an individual's own attitude concerning the placement of handicapped children
2. Study the attitude and knowledge changes of staff members at the beginning and at the end of the first year of the Teacher Assistance/Child Study Team Program
3. Study the attitude and knowledge gains for participants in the "model class pilot"
4. Conducting a similar study but not mixing principals from different grade levels
5. Study the impact of Massachusetts General Law Chapter 766 Section 333 on the mainstreaming of handicapped students

Recommendations

As a result of this study, the following educational improvements were recommended to Superintendent of the Taunton Public School System. In-service education, for a minimum of twenty hours in length will yield a gain in participant knowledge.

Principals' attitudes are often negatively affected by mandated legislation. Principals often feel frustrated with legislation they view as too restrictive. Greater sensitivity to the needs of building principals should be demonstrated by central administration. Often, principals feel isolated and would benefit from workshops or seminars geared towards helping principals focus their energies developing and implementing meaningful educational programs for students.

In-service education is just as important to principals as it is to other staff members. Utilizing the TEAM approach, in the resolution of student learning problems, is beneficial

Educational change does not automatically take place because it is a good idea. Improved communication and an open educational climate must be firmly in place before change will happen. Increasing the competence of the building principal will improve the chances for handicapped children to be successfully mainstreamed.

In conclusion, the workshop residual are having an impact on the total school curriculum. This impact is improving the administrator-teacher, teacher-teacher, teacher-pupil relationships and improving instructional methodologies. All of which are resulting in better and more quality programs for all students.

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APPENDICES

APPENDIX A

APPENDIX A

To: Dr. Gerald A. Croteau

Re: Concerns Regarding Special Services for Taunton Public School Students

Date: December 9, 1985

Once again I an requesting an additional class to provide services for special needs students. Before I continue with this letter I would like to provide you with some information and statistics regarding services above and beyond regular education. Below is a chart indicating the number of children receiving special services not only in special education but also Chapter I and Reading.

Program	Number of Students	% of Stu.
Special Education	1085	17
Chapter I	986	16
Reading	600	9
	2671	42

Looking at these figures reveals that 42% of the student population K-12 is receiving special services. Yes, there are some overlaps in which some students are receiving two or three types of services at one time.

APPENDIX A (continued)

Take 6% of the 42% to justifying the overlapping which will bring this down to 36% of the total school population in the Taunton Public School System receiving some kind of special service.

I have some questions at this time which need some answers:

1. Are we happy with 36% of school population receiving special services?
2. With the Chapter I and Reading programs providing services in reading and math totaling 25%, why is the number of students receiving special education services so high?
3. The state average for special education is 14% and the federal average is 12% which may require some answers or solutions for the high percent of special education students in the Taunton Public Schools.

I am recommending the following in order to discuss the special education population in the Taunton Public Schools:

1. Conference with the Superintendent and staff which should include Dr. Reed, Reading

APPENDIX A (continued)

Administrator, and Mr. Joe Desrosiers, Chapter I Administrator

2. Form a committee of administrators, teachers, guidance counselors, psychologists and special educators to discuss and find solutions for additional referrals resulting in additional special education classrooms.

John F. Serras

Administrator of Special Education

APPENDIX B

APPENDIX B

To: Professional Staff, Taunton Public Schools

From: Department of Special Education

Subject: TEAM-Referral Procedure and Related Itemizations

The following are the procedures for referring students suspected of needing special education services.

1. "Prior to referral of a school age child for an evaluation, all efforts shall be made to meet such child's needs within the context of the services which are part of the regular education program. In addition, all efforts shall be made to modify the regular education program to meet such needs."(766 Regulations, Mass. Dept. of Ed., July, 1981)

In accord with this requirement of the Chapter 766 regulations an internal screening committee will be established by the building principal or housemaster within each school building for the purpose of recommending specific ways in which the regular educational setting can be adjusted to meet such needs.

Each such committee will be comprised minimally of the school principal, counselor, and the regular classroom

APPENDIX B (continued)

teacher(s) in whose class(es) potential special needs students are enrolled.

If a given occasion seems to warrent it, however, the building principal or housemaster may appoint other individuals to the screening committee, e.g., speech therapist, learning disability specialist, etc.

2. On a form provided, the screening committee will spell out spicifically the kinds of modifications which are to be implemented in the regular classroom.

    a. The building counselor will notify parents of the recommended modifications the reason for their employment, and obtain a sign-off by the parents to implement such adjustments.

    b. No later than twenty(20) school days following the initiation of such modifications the screening committee will meet to evaluate the effectiveness of such adaptations and to decide if a formal team evaluation is neccesary. If the recommendation is not to evaluate, the counselor will obtain written

APPENDIX B (continued)

acknowledgement from parents of their satisfaction with the consent to continuation of the adjustments of the preceeding twenty(20) school day period.

c. Parents also have the right, if they feel that the modifications have not been sufficient to sign the pre-team modification form requesting a team evaluation.

PLEASE TAKE NOTE Certain situations will obviate the convening of a building's internal screening committee e.g., prior and direct request for team evaluations by parents, the courts, or other persons or institutions stipulated aws appropriate referral agents for students, speech and motor skill problems, and problems whose magnitude or severity justify direct team evaluation referral by the regular classroom teacher. Where doubtful situations prevail, the twenty(20) school day modification period may be implemented or waived by the Coordinator of Special Education, after being consulted by the principal, housemaster, or guidance counselor.

3. In-system request for team evaluations will be initiated with the submission of the referral

APPENDIX B (continued)

form to the building principal or the housemaster by the referring teacher or specialist. The building principal will notify the building counselor of receipt of the referral form and, in turn, the counselor will alert Mr. Serras.

4. Mr. Serras will notify parents by mail of all referrals for team evaluations. The letter sent to parents will contain all necessary explanatory information plus a cover notice inviting parents to meet with the school guidance counselor. Additionally, Mr. Serras will inform the building principal, housemaster, and guidance counselor of such mailed notifications.

5. At this parent/counselor meeting the referring teacher or other pupil personnel specialist could be invited to attend. Any questions concerning the purposes and/or reasons for the team evaluation could be answered, thereby helping to allay parental anxieties or doubts. At this meeting, also, signed parental permission could be obtained for:

APPENDIX B (continued)

a. Medical Form

b. R.E.A.D.S. referral

6. Following written parental consent to conduct a team evaluation, Mr. Serras, with the assistance of the building counselor, will schedule a pre-team conference involving school personnel who most likely will be participants in the later team evaluation. Such a pre-team conference will provide opportunity for such personnel to share their pre-team diagnosis and testing interpretations.

PLEASE TAKE NOTE

Not all pre-conferences necessarily have to be conducted in a formalized sit-down context involving half a dozen or more professionals. Some special needs situations may be limited in scope requiring input only from as few as 2 or 3 personnel. In such latter circumstances sharing of pre-team opinions may be effected by informal discussion between specialist, teacher, building principal.

7. In keeping with the regulations and barring contingencies that are beyond school department

APPENDIX B (continued)

control, team evaluations will be held and educational plans will be composed for each referred child within thirty(30) working school days following signed parental permission to conduct such an evaluation.

8. Using the check-listing form, the building counselor will maintain a completion record of the various referral and evaluation components.

9. Building principals, housemasters, or their designees shall serve as the team chairperson. Designees shall be limited to the assistant principals except in situations where no such position exists or when circumstances, on a given occasion, shall preclude the principal, housemaster or assistant principal from so serving. When these exceptions prevail the choice of the chairperson will be determined by Mr. Serras.

10. The chairperson, or his designee, will be responsible for completing all appropriate and relevant portions of the I.E.P.

11. The chairperson, or his designee, shall be in attendance for the full measure of any team evaluation session.

APPENDIX B (continued)

12. The chairperson has the overall responsibility to structure and maintain a team meeting atmosphere distinguished by the characteristic of teamwork.

13. The following are suggested guidelines which the TEAM chairperson could pursue in the conduct of a team meeting:

    a. Introduce to the parents each of the other team members.

    b. Give a brief explanation of the purpose of the team meeting.

    c. Specify some structuring which would inhibit unreasonable domination or overbearance by any of the participants.

    d. Povide an order of presentation such as:

        1. Report by the classroom teacher of the academic and behavioral conduct of the child.

        2. Report by the counselor of the cognitive and achievement testing, etc.

        3. Specialized reports, in turn, by speech therapist, L.D. tutor,

APPENDIX B (continued)

nurse, school psychologist, social worker, etc.

4. Presentations by personnel representing outside agencies such as Mental Health, Public Welfare, etc.
5. Input by parents or those serving as advocates or proxies for the parent.

14. The chairperson shall notify the parent/guardian/student at the team meeting that the Administrator of Special Education will mail the total educational plan within ten school working days after the team evaluation, and that within fifteen school working days after receipt, the parent/guardian/student is obligated to sign and date the educational plan and return it to the Administrator of Special Education.
15. No later than the day following the team evaluation the chairperson shall forward the educational plan to Mr. Serras.
16. After the receipt of the parent-approved educational plan Mr. Serras will provide for the initiation of the recommended special services.

APPENDIX B (continued)

17. Following the approval of an educational plan it shall not be the obligation of the counselor either to assure that recommended within district special services are being provided or to monitor the adequacy of such services. The former responsibility is assigned to the Administrator of Special Education and to the building principal. The latter will be assumed by the Administrator of Special Education, the building principal, and the specialist(s) to whom the special needs student will be assigned. These specialists will also bear the designation TEAM liason persons, and, as such will be responsible for reporting at least semi-annually in writing on the progress being effected by the educational plan.
18. The Administrator of Special Education and his staff will provide for reviews of educational plans when it is deemed that circumstances so warrent, at least yearly.
19. The Administrator of Special Education will be responsible for the provision of appropriate transportation services for special needs students.

APPENDIX B (continued)

20. The Administrator of Special Education or his designee will be responsible for returning the approved educational plan to the principal in whose building the special needs student is or will be enrolled.

21. Team evaluations conducted outside the community or in other than local school settings shall be chaired by the social worker or other individual designated by Mr. Serras.

22. In the instance of a rejected plan Mr. Serras will initiate procedures to resolve differences of opinion through informal discussion procedures as specified in the regulations.

PLEASE TAKE NOTE

23. In the formal writing of an educational plan the responsibility of the team is to define the special needs of a student and to specify appropriate short and long term educational goals, educational materials, curricula, etc. It is not the obligation of the team to spell out such things as transportation programming, or the explicit specification of residential or out-of-district placement. Decisions such as these will be included in the educational plan

APPENDIX B (continued)

by the Administrator of Special Education.

The chairperson shall notify the parent/guardian/student at the team meeting that the Administrator of Special Education, if necessary, will include the above provisions i.e., transportation and residential placements, into the educational plan before he mails the plan to the parent for written approval.

APPENDIX C

APPENDIX C

Dear Principal:

Thank you for your cooperation and participation in our recent Principals' In-service Workshop concerning the mainstreaming of handicapped children.

Please take a few minutes and complete this questionnaire. Your assistance in evaluating the effectiveness of this activity is most important.

Listed below are fifteen questions. Questions 1-7, require you to circle the number you feel is most accurate. Questions 8-15, are open ended. Your sincerity and straightforwardness will be appreciated. Please return as soon as possible.

Yours truly,

Lincoln A. DeMoura

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1. No Improvement Needed
2. Some Improvement Needed
3. Considerable Improvement Needed

I. Effectiveness of instructors (circle one)

a. Knowledge of topic 1 2 3

APPENDIX C (continued)

b. Clarity of presentations	1	2	3
c. Answering questions	1	2	3
d. Balance of theoretical and practical issues	1	2	3
e. "Pacing" of the material presentations	1	2	3
f. Workshop organization	1	2	3
g. Use of visual aids	1	2	3
h. Use of handouts	1	2	3
i. Length of workshop	1	2	3

II. Overall, how would you rate the information presented?

1. Too detailed 2. Too simple 3. Appropriate

III. Was there sufficient opportunity for interaction, expression of ideas and opinions? (Circle one)

1. Too much 2. Too little 3. Appropriate

IV. Do you feel that this workshop provided new information relevent to your position? (Circle one)

1. Too much 2. Too little 3. Appropriate

V. Were answers to questions clear and understandable?

1. Most of the time 2. Some of the time 3. Not at all

VI. How helpful do you feel the information presented in this workshop will be to you in programming for handicapped students? (Circle one)

1. Very helpful 2. Helpful 3. Somewhat helpful

VII. What do you consider to be <u>major strengths</u> of this workshop?

1.

2.

3.

APPENDIX C (continued)

VIII. What suggestions do you have for improving future workshops?

1.

2.

3.

IX. List 3-5 significant educational problems in the mainstreaming of handicapped students. Please list them in rank order.

1.

2.

3.

4.

5.

X. How would you resolve those problems with your staff i.e. workshops, etc.?

XI. What items do you feel we should have covered but didn't?

XII. Do you think differently now about mainstreaming than before?

APPENDIX C (continued)

XIII. Do you feel this in-service workshop provided opportunities for experiencing pratical application of activities, procedures or materials?

XIV. Did this workshop accomplish its stated objectives?

Please use this space for additional comments